

LAWS OF GUYANA

GUYANA NATIONAL BUREAU OF STANDARDS ACT

CHAPTER 90:16

Act

11 of 1984

Amended by

2 of 1997

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CHAPTER 90:16

GUYANA NATIONAL BUREAU OF STANDARDS ACT

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CHAPTER 90:16
GUYANA NATIONAL BUREAU OF STANDARDS ACT

11 of 1984

An Act to provide for the preparation and promotion of Standards in relation to commodities, services, processes and practices by the establishment and operation of a Bureau of Standards, to establish the Guyana National Bureau of Standards and the National Standards Council, to vest the management of the Bureau in the Council, to define the objects of the Bureau and the powers and functions of the Council and for matters incidental thereto.

[1ST MARCH, 1985]

PART I
PRELIMINARY

Short title.

1. This Act may be cited as the Guyana National Bureau of Standards Act.

Interpretation.
[2 of 1997]

2. In this Act, unless the context otherwise requires—

“analyst” means any person appointed as an analyst under section 27;

“Bureau” means the Guyana National Bureau of Standards established by section 3;

“code of practice” means a set of rules relating to the methods to be applied or the procedure to be adopted in connection with the construction, installation, testing, operation or use of any article, apparatus, instrument, device or process;

“Chief Inspector” means the Chief Inspector appointed under section 27;

“commodity” means any article or thing which is the subject of industry, trade or commerce except food, drugs, cosmetics and devices within the meaning of the Food and Drugs Act;

c. 34:03

“compulsory standard specification” means a specification so declared by the Minister by order under section 20;

“Council” means the National Standards Council established by section 6;

“Director” means the Director of the Bureau appointed under section 24(1);

“distinctive mark” means a mark which has been prescribed under section 20;

“home-use” means consumption in Guyana of any imported commodity which conforms to a compulsory standard specification;

“inspector” means an inspector appointed under section 27;

“laboratory” means a place for the conduct of experiments aimed at determining technical data relevant to standards work and also for the conduct of spot tests to facilitate the inspection and quality control function of the Bureau;

“mark” includes any device, brand, heading, label, ticket, pictorial representation, name, signature, word, letter, numeral or any combination thereof;

“permit” means a permit issued under section 23;

“practice” includes advertising, labelling or packaging;

“sell” includes expose or offer for sale, or export for the purposes of sale, or have in possession for the purpose of sale or export or for any purpose of trade or manufacture;

“specification” means a description of any commodity, service, process, or practice by reference to its nature, quality, strength, purity, safety, composition, quantity, dimension, weight, grade, durability, origin, age or other characteristic, and includes a code of practice;

“standardization mark” means a mark which has, under section 17(1) been declared to be a standardization mark;

“standard specification” means a specification which is the subject of a notice under section 17.

PART II ESTABLISHMENT OF THE BUREAU

Establishment
of Bureau of
Standards.

3. There is hereby established a bureau to be known as the Guyana National Bureau of Standards.

Objects of
Bureau.

4. The objects of the Bureau shall be—
- (a) to promote standardization in industry and commerce;
 - (b) to prepare, frame, modify or amend specifications and codes of practice;
 - (c) to make arrangements or provide facilities for the testing and calibration of precision instruments, gauges and scientific apparatus, for the determination of their degree of accuracy by comparison with standards approved by the Minister on the recommendation of the Council and for the issue of certificates in regard thereto;
 - (d) to make arrangements or provide facilities for the examination and testing of commodities and any material or substance from or with which, and the manner in which commodities may be manufactured, produced, processed or treated;
 - (e) to control, in accordance with the provisions of this Act, the use of standardization marks and distinctive marks;
 - (f) to encourage or undertake educational work in connection with standardization;
 - (g) to provide for co-operation with any person, association or organization outside Guyana having objects similar to those for which the Bureau is established;
 - (h) to assist in the rationalisation of

industry by coordinating the efforts of producers and consumers for the improvement of appliances, processes, raw materials and products;

- (i) to establish, form, furnish and maintain information systems and laboratories for the purpose of furthering the practice of standardization;
- (j) to provide for the testing, at the request of the Minister and on behalf of the Government, of locally manufactured and imported commodities with a view to determining whether such commodities comply with the provisions of this Act or any other law dealing with standards of quality;
- (k) to do such other acts as may be expedient or necessary for the attainment of the objects of the Bureau referred to in this section.

Management of Bureau.

5. The Bureau shall be managed by the Council.

**PART III
NATIONAL STANDARDS COUNCIL, ITS FUNCTIONS
AND POWERS**

Establishment and incorporation of National Standards Council.
[2 of 1997]

6. (1) There is hereby established a body corporate to be known as the National Standards Council consisting of the following members—

- (a) the Director of the Bureau;
- (b) not more than fifteen members

appointed by the Minister by instrument in writing.

(2) Members of the Council appointed shall have qualifications in fields relating to standards, or experience in business or shall be members of organizations committed to the maintenance or promotion of standards.

(3) Each of the members of the Council shall be appointed to hold office for such period, not exceeding three years, as may be specified in their respective instruments of appointment.

(4) A member of the Council who vacates office by expiration of time shall be eligible for re-appointment.

(5) On the expiration of the period for which a member is appointed, he shall continue to hold office until his successor is appointed.

(6) The names of the members of the Council as first constituted and every change in the membership of the Council shall be published in the *Gazette*.

(7) The Council may, subject to the approval of the Minister, delegate to any member of the Council or to any member of the staff of the Council the power and authority to carry out such of its functions as the Council may determine.

(8) Every delegation under this paragraph shall be revocable by the Council and no delegation shall prevent the exercise by the Council of any function delegated.

Chairman and
Vice-
Chairman.

7. (1) The Minister shall appoint from among the members of the Council a Chairman and a Vice-Chairman.

(2) The Chairman and Vice-Chairman, unless any

of them earlier vacates office as Chairman or Vice-Chairman, as the case may be, shall hold office for one year but shall be eligible for re-appointment to that office.

(3) The Vice-Chairman shall perform the duties of the Chairman in the absence of the Chairman or where there is a vacancy in the office of Chairman.

Resignation of
Chairman and
members.

8. (1) The Chairman may at any time resign his office by instrument in writing addressed to the Minister.

(2) A member of the Council, other than the Chairman, may at any time resign his office by instrument in writing addressed to the Chairman.

Termination
of appointment
of members.

9. The Minister may terminate the appointment of any member of the Council who—

- (a) becomes of unsound mind or incapable of carrying out his duties;
- (b) becomes bankrupt or compounds with, or suspends payment to his creditors;
- (c) is convicted and sentenced to a term of imprisonment;
- (d) is convicted of any offence involving dishonesty;
- (e) is guilty of misconduct in relation to his duties;
- (f) is absent, except on leave granted by the Council, from three consecutive meetings of the Council; or
- (g) fails to carry out any of the duties or

functions conferred or imposed on him by or under this Act.

Remuneration of members.

10. There shall be paid to the members of the Council such remuneration whether by way of salaries or travelling or other allowances, as the Minister may determine.

Meetings of Council and procedure.
[2 of 1997]

11. (1) The Council shall meet at least once in each quarter and at such other times as may be necessary or expedient for the transaction of the business of the Council.

(2) The Chairman shall give at least ten days' notice in writing of every meeting of the Council to each of the members of the Council and shall specify in such notice the business to be dealt with at such meeting.

(3) The Chairman shall summon a special meeting of the Council within fourteen days after being requested in writing to do so by three members of the Council.

(4) One third of the members of the Council in office shall form a quorum at any meeting of the Council.

(4A) In the absence of the Chairman and Vice-Chairman at a meeting of the Council a member not being the Director of the Bureau, elected by the members present at the meeting from amongst themselves shall preside thereat.

(4B) A decision of the Council shall be by a majority of votes and in addition to an original vote, in any case in which the voting is equal, the Chairman or Vice-Chairman or other member presiding at the meeting shall have a casting vote.

(5) The proceedings at every meeting of the Council shall be recorded in a minute book and shall, subject

to any amendments that may be made, be confirmed by the Council at a subsequent meeting.

(6) Subject to the foregoing provisions of this section, the Council may determine its own procedure.

Members
declare interest.

12. (1) A member of the Council, whose interest is likely to be affected whether directly or indirectly by a decision of the Council on any matter whatsoever, shall disclose the nature of his interest at the first meeting of the Council at which he is present after the relevant facts have come to his knowledge.

(2) A disclosure under subsection (1) shall be recorded in the minutes of the Council and after the disclosure the member making it shall not vote on the matter and, unless the Council otherwise directs, shall not be present or take part in the deliberations at any meeting when such matter is being decided by the Council.

Custody and
use of seal.

13. (1) The seal of the Council shall be kept in the custody of the Director or Chairman as the Council may determine.

(2) The affixing of the seal of the Council to any instrument other than an instrument referred to in subsection (3) shall be in the presence of and be attested by—

- (a) the Chairman and another member of the Council who is authorised by the Director to act on behalf of the Council on such an occasion; or
- (b) such member of the Council and such member of the staff of the Council as the Director may authorise to act on behalf of the Council on such occasion.

(3) The affixing of the seal of the Council to an instrument containing an agreement for the rendering of any service by the Council shall be in the presence of, and be attested by the Director or, in his absence, any member of the staff of the Council who is authorised by the Director to act on behalf of the Director on such an occasion.

Committees.

14. (1) The Council may establish committees to assist it in the performance of its functions and may appoint such persons, whether or not they are connected with the Council or the Bureau, as it may deem fit to be members of any such committee:

Provided that the Chairman of every such committee shall be a member of the Council.

(2) The Council may assign to a committee so established such of its functions as it may deem fit, but shall not be divested of any function which it may have assigned to a Committee. The Council may amend or revoke any decision made by a committee.

(3) The members of any such committee may out of the funds of the Council receive such remuneration and allowances as the Council may determine with the concurrence of the Minister.

(4) A committee may regulate its own procedure.

Functions of Council.
[2 of 1997]

15. The functions of the Council shall be—

- (a) subject to any law for the time being relating to weights and measures, to be the custodian of the National Standards of Weight and Measure;
- (b) to formulate on broad national lines the

policy which, subject to the approval of the Minister, shall be adopted by it with a view to achieving the objects for which the Bureau is established;

- (c) to advise the Minister in regard to any matter within his purview under this Act;
- (d) to establish laboratories and other facilities for carrying out the objects for which the Bureau is established;
- (e) to prepare standards, specifications and codes of practice;
- (f) to provide facilities for testing of all products and materials;
- (g) to determine minimum standards of local industrial products by inspection and testing of all such products;
- (h) to licence and register standard marks and inspect factories so as to enforce conformity to the standards declared by the Minister;
- (i) to compare the standards used in engineering, manufacturing, commerce and research with the standards adopted or recognised by the Government;
- (j) to construct when necessary standards and their multiples and sub-multiples;
- (k) subject to any law for the time being relating to weights and measures, to test and calibrate standard-measuring and weighing

apparatus;

- (l) to find solutions for problems which arise in connection with standards;
- (m) to determine physical constants and the properties of materials when such data are of great importance to scientific or manufacturing interests and cannot, of sufficient accuracy, be obtained elsewhere;
- (n) to promote research in relation to specifications;
- (o) to assess quality management systems in relation to commodities, services, processes and practices to which this Act applies and to control such systems.
- (p) to establish and manage a national laboratory accreditation systems;
- (q) to make such arrangements for training of its staff as it may consider expedient for the efficient conduct of its work;
- (r) to provide advisory services for manufacturers and to undertake the training of manufacturing staff in quality assurance;
- (s) to do all things incidental or conducive to the performance of its functions under the Act.

Powers of
Council.

16. The Council shall have power —

- (a) to apply for, purchase, receive by assignment or otherwise acquire in accordance with the laws of Guyana or any other country, any patents, inventions, concessions, licenses and the like conferring exclusive or non-exclusive or limited rights to use information as to any invention or discovery and to develop, use, exercise, assign, transfer, sell, grant licences in respect of, or otherwise exploit the property, rights and information so acquired;
- (b) to utilise the services of other laboratories within Guyana which are recognised by the Council;
- (c) to do all such things as are necessary for the attainment of the objects of the Bureau, or the performance of any functions, or the exercise of any powers of the Council or to enhance the value of or render profitable any of the property or rights of the Council.

Standardiza-
tion marks.

17. (1) Subject to subsection (2), the Council may, with the approval of the Minister, by notice published in the *Gazette*, declare any marks which has been adopted by the Council in respect of a specification framed by it for any commodity, or for the manufacture, production, processing or treatment of any commodity, to be a standardization mark in respect of that commodity or of the manufacture, production, processing or treatment of that commodity and may in like manner amend any such mark.

c. 90:01

(2) No mark which is identical with any trade mark registered in respect of any commodity under the Trade Marks Act or which so nearly resembles any such trade mark as to be likely to be mistaken for it, shall under subsection (1)

be declared a standardization mark in respect of that commodity or any similar commodity or in respect of the manufacture, production, processing or treatment of that commodity or any similar commodity.

(3) A notice under subsection (1) shall contain such information in regard to the relevant specification or amendment thereof as the Council may consider necessary.

Prohibition of registration of marks identical with standardization marks as trademarks. c. 90:01

18. No person shall cause any mark which is identical with a mark which has been declared under section 17 (1) to be a standardization mark, or which so nearly resembles a mark so declared as to be likely to be mistaken for a standardization mark, to be registered as a trade mark under the Trade Marks Act.

Standardization marks not to be applied to commodities unless authorised by permits.

19. (1) Whenever the Council has published any notice under section 17(1), no person shall apply the standardization mark mentioned in that notice to any commodity—

- (a) except under a permit issued by the Council or a person authorised by the Council; and
- (b) unless that commodity complies with the relevant specification or has been manufactured, produced, processed or treated in accordance with that specification.

(2) Any person who —

- (a) applies a standardization mark to any receptacle or covering of any commodity or any label attached to any commodity or attached to any

receptacle or covering thereof; or

- (b) places or encloses any commodity in a receptacle or covering to which any standardization mark has been applied, or in a receptacle or covering to which is attached a label to which any such mark has been applied; or
- (c) makes, in connection with the sale of any commodity, any reference, directly or indirectly, to a standardization mark in a manner or under circumstances calculated to convey the impression that the commodity complies with the specification to which the standardization mark relates, or that it has been manufactured, produced, processed or treated in accordance with that specification,

shall, for the purposes of subsection (1), be deemed to have applied that standardization mark to that commodity.

(3) No person shall in connection with the sale of any commodity make any reference directly or indirectly to the Bureau or the Council or a specification framed and approved, or purporting to have been framed and approved, by the Council unless –

- (a) the Council has declared any mark to be a standardization mark in respect of the specification framed by the Council for the commodity in question or for the manufacture, production, processing or treatment of that commodity; and

- (b) such person is in possession of a permit issued by the Council authorising him to apply such standardization mark to that commodity.

Power of Minister by order to declare compulsory standard specification.

20. (1) The Minister may, subject to the other provisions of this section, by order—

- (a) on the recommendation of the Council, declare any standard specification for any commodity or for the manufacture, production, processing or treatment of any commodity to be, with effect from a date specified in the order, being a date not earlier than three months after the date of the order, a compulsory standard specification for that commodity or for the manufacture, production, processing or treatment of that commodity; and
- (b) prescribe, in respect of any compulsory standard specification, a distinctive mark for any commodity which complies with that specification or which has been manufactured, produced, processed or treated in accordance with that specification.

(2) If the order under subsection (1) relates to any commodity, or the manufacture, production, processing or treatment of any commodity, which is the subject matter of any other law, the order shall be made by the Minister after consultation with the Minister to whom the administration of

such other law has been assigned.

(3) An order made under subsection (1) may in like manner be amended by a subsequent order.

(4) Before such order is made under subsection (1) the Minister shall publish a notice in the *Gazette* declaring his intention to make such an order and specifying a date on or before which representations on the proposed Order may be made to the Minister.

(5) Any interested person may on or before the date specified in the notice under subsection (4), lodge with the Director a written representation on the proposed order.

(6) The Director shall consider the representation made to him under subsection (5) and communicate his decision to the Minister.

(7) The Minister shall not make an order under subsections (1) unless he is satisfied that the Director has given due consideration to the representations made to him under subsection (5).

Proof of
specification.

21. *Prima facie* evidence of any standard specification or compulsory standard specification may be given in any proceedings by the production of a copy of the notice referred to in section 17 or of a copy of the order referred to in section 20(1) (a) as the case may be.

Sale of
commodity to
which section
20 applies
prohibited
except under
permit and
unless
commodity
complies with

22. (1) Where the Minister has by order under section 20 declared a standard specification to be a compulsory standard specification for any commodity or for the manufacture, production, processing or treatment of any commodity, no person shall, with effect from the date specified in that order, sell that commodity —

(a) except under a permit issued by the

specification,
etc.

Director or other officer authorised by
the Director; and

- (b) unless that commodity —
 - (i) complies with that specification;
or
 - (ii) has been manufactured,
produced, processed or treated
in accordance with that
specification.

(2) Where the Minister has by order under section 20 prescribed a distinctive mark in respect of any compulsory standard specification, no person shall, with effect from the date specified in the order, apply that mark to any commodity to which that specification applies —

- (a) except under a permit issued by the
Director or other officer authorised by
the Director; and
- (b) unless that commodity —
 - (i) complies with that
specification; or
 - (ii) has been manufactured,
produced, processed or
treated in accordance with
that specification.

Examination
of certain
imports and
powers of
inspector with
regard thereto.

22A. (1) Where any commodity for which a compulsory standard specification has been declared, is produced or manufactured outside Guyana, the Council may instruct in writing any inspector to examine any customs

[2 of 1997] entries in respect of such commodity and to examine such commodity to ascertain its conformity with such compulsory standard specification.

(2) An inspector instructed to examine any commodity under subsection (1) may take samples thereof and submit the samples to an analyst for analysis or examination.

(3) Where an analyst has made an analysis or examination he shall issue to the inspector a certificate or report setting forth the results of his analysis or examination.

(4) A commodity to which this section applies may be refused admission for home-use, if—

- (a) any report or certificate issued under subsection (3) states that the commodity does not comply with any compulsory standard specification as is applicable to such commodity; or
- (b) the importer of such commodity fails to provide the Council at its request, with a certificate of examination and compliance with such compulsory standard specification issued by a laboratory or other similar institution, in the country where the commodity is manufactured, recognised by the Bureau; or
- (c) the manufacturer of such commodity fails to comply with any request made under section 28C(1).

(5) Where any imported commodity falsely

bears any standardisation mark or distinctive mark or which falsely bears a mark of compliance with any specification required under the law of a country outside Guyana, such commodity shall not be admitted for home-use.

(6) Where any commodity to which this section applies is examined by an analyst, the Council may require the importer of such commodity to pay such examination fee, as the Council may, with the approval of the Minister, determine.

Registration of importer and manufacturer of certain commodities. [2 of 1997]

22B. (1) Every importer of any commodity to which section 22A applies and every manufacturer of any commodity for which a compulsory standard specification has been declared, shall register with the Council annually as an importer or manufacturer, as the case may be, in accordance with subsection (2).

(2) Every application for registration as an importer or manufacturer shall be in the prescribed form and shall be accompanied with such fees as the Council may, with the approval of the Minister, prescribe.

Permits.

23. (1) Every application for a permit for the purpose of this Act shall be made in writing to the Director or other officer authorised by the Director.

(2) The issue of a permit under this section shall be in the discretion of the Director or other officer authorised by the Director, and where a permit is issued it may be subject to such conditions as may be specified therein and shall be upon payment by the person to whom it is issued of such fee as the Council may, with the approval of the Minister, determine.

(3) A permit issued under this section shall be valid for such period as may be specified therein and may at any time be cancelled after notice in writing thereof has been

given to the person to whom it has been issued.

(4) Where an application for a permit under this section is refused, notice of such refusal shall be given by the Director or other officer authorised by the Director to the person making such application.

(5) Any person who is aggrieved by the refusal of the Director or other officer authorised by the Director, to issue a permit, or by the cancellation of a permit may, within fifteen days after the date of the notice of such refusal or cancellation, appeal in writing to the Minister. The decision of the Minister on any such appeal shall be final and conclusive.

PART IV STAFF OF THE COUNCIL

Appointment
of Director of
Bureau.

24. (1) The Minister shall appoint a person who is suitably qualified, scientifically and technically, to be the Director of the Bureau. The conditions of employment, including the remuneration, of the Director shall be determined by the Minister.

(2) Whenever the Director is unable to perform his functions through absence or illness or any other cause the Minister may appoint a suitably qualified member of the staff of the Council to act in his place.

(3) The duties of the Director shall be to organise, carry out and direct the work of the Bureau in accordance with the policy adopted by the Council in terms of section 15.

Employment
of staff of
Council.

25. (1) The Council may employ at such remuneration and on such other terms and conditions it thinks fit (including the payment of pensions, gratuities or other like benefits by reference to the service of its officers and other employee,) such other officers and other employees as the Council considers necessary for the purpose of carrying out

its functions and achieving the objects of the Bureau:

Provided that—

- (a) no salary in excess of such amount as may be specified in directions issued by the Minister shall be assigned to any office without the prior approval of the Minister;
- (b) no appointment shall be made to any office to which a salary, in excess of an amount specified under paragraph (a) is assigned, without the prior approval of the Minister;
- (c) no provision shall be made for the payment of any pensions, gratuities or other like benefits to the officers and other employees of the Council by reference to their service, without the approval of the Minister.

(2) The Director shall be the chief executive officer of the Bureau and, subject to any general or special directions of the Council, shall be responsible for the execution of the policy adopted by the Council and answerable therefor to the Minister.

(3) The Council may, at any time, retain the services of experts and other professional persons and may pay such remuneration in respect thereof as the Council, with the approval of the Minister, may determine.

(4) Where a public officer is seconded or temporarily transferred from a pensionable office within the meaning of the Pensions Act to an office with the

Council section 5 of that Act shall apply to him as if his service with the Council were service in a public office.

(5) Where a public officer is appointed to an office with the Council, his service with the Council shall be other public service within the meaning of, and for the purpose of such provisions applicable in relation thereto as are contained in, the Pensions Act (including the Pensions Regulations 1957).

c. 27:02

(6) Subsections (4) and (5) shall, as they apply in relation to a public officer, apply *mutatis mutandis* in relation to a teacher to whom the Teachers' Pension Act applies and who is employed by the Council.

c.39:05

Additional
assistance.
[2 of 1997]

25A.(1) Where in opinion of the Council, the inspection service of the Council is inadequate to discharge its functions in any part of Guyana and additional assistance is requested therefor the Council may request the Minister to provide the required assistance.

(2) Where the Minister receives a request for assistance, he may cause to be authorised in writing any officer or employee of the local democratic organ for that part of Guyana to which such request relates or a member of the Police Force operating there, to discharge the functions of an inspector or other officer or employee of the Council, and such authorised officer or employee or member of the Police Force, as the case may be, shall have and may discharge all the powers and functions of an inspector or other officer or employee of the Council.

Power of
Council to
exercise
disciplinary
control over its
staff.

26. (1) The Council shall have the power to exercise disciplinary control, other than the power of dismissal, over the Director of the Bureau.

(2) The Council shall have the power to exercise disciplinary control over, and dismiss, any other officer or

employee of the Council.

Appointment
of Chief
Inspector,
analysts and
inspectors.
[2 of 1997]

27. (1) The Council may appoint any member of its staff who is suitably qualified as the Chief Inspector, and such other members of the staff of the Council, as may be necessary, who are suitably qualified as inspectors or analysts for the purposes of this Act.

(2) The Chief Inspector and every inspector or analyst shall be provided with a certificate of his appointment by the Director.

(3) The Chief Inspector shall exercise general supervision and control over every inspector and may exercise any power or perform any duty conferred or imposed on an inspector by or under this Act.

Powers of
inspectors.
[2 of 1997]

28. (1) Any inspector may, for the purposes of this Act, if instructed by the Council in writing—

- (a) without previous notice at any reasonable time, enter upon any premises in or upon which any commodity specified in such instructions, for which, or for the manufacture, production, processing or treatment of which, there is a compulsory standard specification or a standardization mark, is or is reasonably suspected to be manufactured, produced, processed or treated, or in or upon which any such commodity is or is reasonably suspected to be kept for the purpose of trade;
- (b) inspect or take samples of such

commodity or any material or substance used or suspected to be intended for use in the manufacture, production, processing or treatment thereof, and open any package or container which contains or is suspected to contain any quantity of any such commodity, material or substance;

- (c) inspect any operations carried out in or upon any such premises in connection with the manufacture, production, processing or treatment of any commodity for the manufacture, production, processing or treatment of which there is a compulsory standard specification or a standardization mark;
- (d) at any time require from any person the production of any book, notice, record, list or other document which is in the possession or custody or under the control of that person or of any other person on his behalf;
- (e) examine any such book, notice, record, list or document, make copies of or take extracts from any such book, notice, record, list or document which relates to any commodity referred to in paragraph (a) or to any permit issued or to be issued under this Act, require from any person an explanation of any entries therein, and seize any such book, notice, record, list or document

as in his opinion may afford evidence of any offence under this Act;

- (f) question either alone or in the presence of any other person, as he thinks fit, with respect to any matter which is being investigated by him, every person whom he finds on the premises entered by him by virtue of the aforesaid powers or whom he has reasonable grounds for believing to be or to have been employed on any such premises or to be in the possession, custody or control of anything referred to in this subsection;
- (g) require any person referred to in paragraph (d), (e) or (f) to appear before him at a time and place fixed by him, and question that person concerning any matter which is being investigated by him;
- (h) seize and detain for such time as may be necessary for the purposes of any examination, investigation, trial or inquiry, any commodity by means of, or in relation to which, he has reasonable grounds to believe any provision of this Act has been contravened.

(2) A person who is in charge of any premises referred to in subsection 1(a) shall at all times furnish such facilities as are required by an inspector for the purpose of

exercising his powers under the said subsection.

(3) Any inspector exercising any powers conferred upon him by this section shall, on demand, produce the certificate provided him in terms of section 27(2) and the written instructions referred to in subsection (1) of this section.

(4) Any commodity seized under this Act may at the option of an inspector be kept or stored in the building or place where it was seized or may at the direction of an inspector be removed to any other proper place.

(5) Where an inspector in exercise of his powers under this Act has taken a sample of any commodity, material or substance to which this Act applies and it appears from any examination or investigation by the inspector or the analyst that the sale of or dealing with such commodity, material or substance would not be in contravention of this Act, the inspector shall pay compensation to the owner of the sample if it cannot be returned to the owner without prejudice to the owner.

(6) An inspector shall release any commodity seized by him under this Act when he is satisfied that all the provisions of this Act with respect thereto have been complied with.

(7) Where an inspector has seized any commodity under this Act and the owner thereof or the person in whose possession the commodity was at the time of seizure consents to the destruction thereof the commodity shall thereupon be forfeited in the State and may be destroyed or otherwise disposed of as the Minister may direct.

Analysis.
[2 of 1997]

28A. (1) An inspector may submit any sample taken in accordance with section 28(1)(b), or any commodity seized by him under section 28(1)(h) or any sample from such

commodity, to an analyst for analysis or examination.

(2) Where an analyst has made analysis or examination he shall issue to the inspector a certificate or report setting forth the results of his analysis or examination.

Investigation of
complaints.
[2 of 1997]

28B. (1) The Council shall, through its inspectorate, cause to be investigated, complaints regarding commodities, services, processes or practices referred to it by consumers and users.

(2) Where any complaint is found to be true on investigation, the Council may cause to be instituted legal proceedings against the manufacturer or other person supplying the defective commodity or service or engaged in the defective process or practice.

Declaration by
local manufactur-
er and certificate in
respect of
imported
commodities.
[2 of 1997]

28C. (1) Where any compulsory standard specification has been declared in respect of any commodity, the Council may request the manufacturer of such commodity to furnish a declaration in the prescribed form that such commodity has been manufactured in accordance with such specification as is applicable to such commodity and any manufacturer who fails to comply with any such request shall be guilty of an offence.

(2) Where any commodity for which there is no compulsory standard specification is manufactured outside Guyana such commodity shall not be imported into Guyana unless it wholly conforms to any specification under the law of the country in which it is manufactured and is accompanied by a certificate in the prescribed form certifying that the commodity conforms to such specification under the law of that country and that its sale therein would not constitute a contravention of the law thereof.

PART V
FUNDS OF THE COUNCIL

Funds and
resources of
Council.

29. The funds and resources of the Council shall consist of—

- (a) such sums as may be provided by Parliament;
- (b) revenue obtained by virtue of the provisions of section 30;
- (c) such moneys or other assets as may accrue to, or vest in the Council by way of grants, subsidies, bequests, donations or gifts;
- (d) all other sums or property that may in any manner become payable to or vested in the Council in respect of any matter incidental to its powers and duties.

(2) The expenses of the Council including any remuneration of its officers and employees shall be paid out of the funds and resources of the Council.

Charging of
fees for services
rendered.

30. Subject to the provisions of any regulations made under section 42, the Council may, in respect of any services rendered by it under this Act charge such fees or make such financial arrangements as it may deem fit.

Accounts and
audit.

31. The financial year of the Council shall end on the thirty first day of December.

(2) The Council shall keep proper accounts and other records in respect of its operations and the accounts shall be audited annually by an auditor appointed by the Council with the approval of the Minister.

(3) All books of account kept by the Council shall be subject to examination and audit at any time by the Auditor General.

(4) The members, officers and employees of the Council shall grant to the auditor appointed under subsection (2) or the Auditor General access to all books, documents, cash and securities of the Council and shall give him on request all such information as may be within their knowledge in relation to the operation of the Council and the Bureau.

Report.

32. (1) The Council shall not later than six months after the end of each financial year submit a report to the Minister containing—

- (a) an account of its transactions throughout the preceding financial year in such detail as the Minister may direct: and
- (b) a statement of the accounts of the Council audited in accordance with section 31.

(2) A copy of the report together with a copy of the auditor's report shall be printed and laid before the National Assembly.

PART VI MISCELLANEOUS

Protection
against claims.

33. The fact that any commodity complies, or is alleged to comply, with a standard specification or a compulsory standard claims specification or has been or is alleged to have been manufactured, produced, processed or treated in accordance with any such specification or that a

standardization mark or distinctive mark is used in connection with any commodity, shall not give rise to any suit or prosecution against the Council or any member thereof or any member of the staff thereof.

Secrecy.

34. (1) All information obtained by the Bureau, or the Council or any member of the Council or its staff or by any other person in the course of the administration of this Act, as to any formula, process or practice shall be treated as confidential save for purposes connected with the administration of this Act.

(2) The disclosure of any information relating to any formula, process or practice to the Minister, or the Bureau, or the Council or any member of the Council or its staff, or to any other person for purposes connected with the administration of this Act, shall not prejudice any application subsequently made for the patent of the formula, process or practice.

Rights in discoveries, inventions and improvements made by staff of Council to vest in Council.

35. (1) The rights in all discoveries and inventions and all improvements in respect of processes, apparatuses and machines made by an officer of the Council shall vest in and be the property of the Council and shall be made available for use in the public interest subject to such conditions and the payment of such fees or royalties as the Council may determine.

(2) The Council may, out of the funds of the Council, pay to an officer of the Council who has made any discovery, invention or improvement referred to in subsection (1) such reward, or make provision for such officer to participate in the profits derived from that discovery, invention or improvement, as the Council may determine.

(3) The Council may apply for letters patent in respect of any inventions made by any officer of the Council and shall for the purpose of the Patents and Designs Act be

c. 90:03

regarded as the assign of the inventor.

Exemption
from taxes and
duties.

36. The Council shall be exempt from the payment of customs duty, capital gains tax, corporation tax, income tax, property tax, and purchase tax.

Use by person
carrying on
activity,
business, trade
or occupation
of certain
words.

37. (1) Except with the written approval of the Minister and subject to the provisions of subsections (3) and (4), no person shall carry on any activity, business, trade or occupation under any name which contains the words "Bureau of Standards", "Standards Bureau" or such words which would create an impression that such person were the Bureau or is associated or connected with the Bureau.

(2) Except with the written approval of the Minister and subject to the provisions of subsections (3) and (4)—

(a) no trade mark which contains the word "standard" shall be registered under the Trade Marks Act; and

(b) no person shall, unless authorised thereto by a permit, sell any commodity under a mark which contains the word "standard" or under a description in which the said word is used in a manner which may create the impression that the commodity complies with a specification framed therefor by the Council.

(3) Any person who, at the commencement of this Act, carries on any activity, business, trade or occupation or is registered under any such name as is referred to in subsection (1) may, notwithstanding the provisions of subsection (1),

c. 91:01

continue to carry out that activity, business, trade or occupation, or to be registered, as the case may be, under such name.

(4) The provisions of subsection (2) shall not affect any trade mark registered before the commencement of this Act, or the sale of any commodity under such trade mark.

(5) The Minister may at any time withdraw any approval given by him under subsection (1) or subsection (2) if, in his opinion, it is necessary to do so in order to avoid confusion or abuse.

Duty of persons to whom permits have been issued to transmit samples of commodities or furnish information relating to commodities whenever required to do so.

38. Any person to whom a permit has been issued under this Act shall, upon a request in writing made by the Council—

- (a) transmit to the Council or any person approved by the Council, within such time as may be specified in such request, such samples as may be so specified of any commodity in respect of which that permit has been issued; or
- (b) furnish to the Council or to any person approved by the Council, within such time as may be specified in such request, such information as may be so specified in regard to such commodity or the manufacture, production, processing or treatment thereof,

and the first-mentioned person shall comply with the requirements of such request.

Offences.
[2 of 1997]

39. Every person who—

- (a) contravenes the provisions of section 19(1)

or (3) or of section 22(1) or (2);

- (b) contravenes the conditions of any permit issued under this Act;
- (c) contravenes the provisions of section 34(1) or section 37(1) or (2);
- (d) falsely holds himself out to be the Chief Inspector or an inspector;
- (e) makes any relevant statement to the Chief Inspector or an inspector which is false in any material particular and which he knows to be false;
- (f) refuses or fails to answer any relevant question which the Chief Inspector or an inspector in the exercise of his powers has put to him;
- (g) refuses or fails to comply with any lawful direction made by the Chief inspector or an inspector;
- (h) hinders or obstructs the Chief Inspector or an inspector in the exercise or performance of his powers or duties;
- (i) fails to comply with any request under section 38;
- (j) removes, alters or interferes in any way with any thing seized or detained under the authority of this Act, or with any detention or other tag attached to such thing, without the authority of an inspector;

- (k) attempts to sell for home-use or export a commodity which does not conform to a compulsory standard specification;
- (l) contravenes any other provision of this Act,

shall be guilty of an offence.

Penalties.
[2 of 1997]

40. (1) Every person guilty of an offence under this Act shall on summary conviction be liable—

- (a) in the case of an offence referred to in section 39(a) or (b) or (j) to a fine not exceeding five hundred dollars and to imprisonment for a period not exceeding three months;
- (b) in the case of an offence referred to in section 39(c) to (h), to a fine not exceeding two thousand dollars and to imprisonment for a period not exceeding one year; and
- (c) in the case of an offence referred to in section 39(i) to a fine not exceeding one thousand dollars and to imprisonment for a period not exceeding six months.

(2) Whenever any person is convicted of an offence referred to in subsection (1) (a) or (b) or of a contravention of section 37(2), the court may, in addition to any other penalty which it may impose, order that all or any part of the commodities in respect of which the offence was committed be forfeited to the State, and the commodities so ordered to be forfeited shall be disposed of in such manner as the Minister may direct.

(3) Where a person is convicted for a contravention of section 19(1) or (3) or section 22(1) or (2), the court convicting him may, in addition to the penalty imposed order that the person convicted cease forthwith the manufacture, production, processing, treatment or selling of any commodity to which such contravention relates for such period as the contravention continues.

Prosecution.

41. The Council may institute or cause to be instituted any prosecution for the purpose of enforcing any of the provisions of this Act and any inspector or other authorised officer of the Council may appear as prosecutor for and on behalf of the Council.

Regulations.

42. The Minister may, after consultation with the Council, make regulations for the carrying out of the provisions of this Act.

SUBSIDIARY LEGISLATION

O. 22/1998.

**GUYANA NATIONAL BUREAU OF
STANDARDS (COMPULSORY STANDARD
SPECIFICATIONS) ORDER**

made under section 20

Citation.

1. This Order may be cited as the Guyana National Bureau of Standards (Compulsory Standard Specifications) Order 1998.

Standard specifications declared compulsory.

2. The Standard Specifications specified in the First, Second, Third, Fourth, Fifth, Sixth, Seventh and Eight Schedules are hereby declared compulsory.

FIRST SCHEDULE

GYS 10: 1994

GUYANA STANDARD
FOR THE
LABELLING OF COMMODITIES

Part 1: General Principles

1.0 SCOPE

The purpose of this standard is to describe general labelling requirements for commodities. It is applicable to all commodities which are customarily labelled in the course of trade, except for which more specific requirements have been prescribed elsewhere.

2.0 DEFINITIONS

For the purpose of this standard the following definitions apply:

2.1 **Commodity:** any article, product or thing which is the subject of trade or commerce.

2.2 **Country of origin:** the country where the nature or quality of the commodity was last changed to a significant extent other than by packaging.

2.3 **Label:** any legend, word or mark, attached to, included on, belonging to or accompanying the commodity or its container.

2.4 **Labelling:** the label and any matter written, printed, stencilled, marked, embossed, relating to and

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accompanying the commodity.

- 2.5 **Legible:** the written matter can be read and understood without difficulty under the conditions in which the label is normally displayed to the consumer.
- 2.6 **Sell:** offer, expose, or have in possession for sale or display in such a manner as to lead to the reasonable belief that the product is intended for sale.
- 2.7 **Toxicity:** the degree of strength of any substance that can be harmful to the body.
- 2.8 **Weight:** equivalent to "mass".

3.0 REQUIREMENTS

- 3.1 **General:** A label affixed to, or marked on a commodity or its external package shall conform with the following requirements:
- 3.1.1 It shall give a description of the commodity and shall provide adequate information to a potential purchaser enabling him to select the commodity best suited to his needs.

This information shall include the weight, volume, measurement or size as applicable and shall give an accurate description of the components of the commodity as is necessary.

- 3.1.2 It shall, if necessary, provide the purchaser with appropriate operating instructions and with information on care, maintenance and precautions in use.

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3.1.3 It shall provide information enabling the manufacturer or the supplier to be traced and shall state the country of manufacture or origin.

3.1.4 It shall be legible and durable up to the point of sale and where appropriate, during normal working life and use.

3.1.5 It shall not be false, misleading or deceptive.

3.1.6 It shall provide information regarding any specific dangers which might be related to the use of the commodity and shall provide first-aid instructions where necessary.

3.2 **Language to be used on labels**

3.2.1 The information to be included on the label of every container in the English Language.

3.2.2 For export of goods to bilingual countries, all information displayed on the label of every container shall be shown in both official languages. Only the name and business address of the processor, manufacturer, packer or distributor may be shown in one of the official languages.

3.3 **Responsibility for Labelling**

It is the responsibility of any person who sells or distributes any commodity to see that it is properly labelled as required by this standard.

3.4 **Toxicity:**

The material used in making labels shall be free from

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Toxic and Noxious matter or substances.

4.0 SUPPLEMENTARY STANDARDS

Supplementary standards on labelling of particular goods, groups of goods or classes of goods shall be declared as other parts of this standard.

Guyana Standard referring to particular goods may also make provisions for the labelling or marking of these goods.

5.0 CONFLICT

In the event of conflict between this standard and a supplementary standard, the latter shall prevail.

In the event of conflict between the provision of this standard and the provision of any Guyana Standard referring to the labelling or marking of particular goods, the latter shall prevail.

6.0 APPROVAL OF LABELS

An authorised Government Agency shall approve labels conforming to this standard or to a particular supplementary specification.

National Standards Council

National Standards Council is the controlling body of the Guyana National Bureau of Standards (GNBS) and is responsible for the policy and general administration of the Bureau.

The Council is appointed by the Minister as indicated in the GNBS Act. Using its powers in the Standards Act, the Council

establishes committees for specified purposes.

A Guyana Standard is a standard which has been approved by the Standards Council and one which reflects reasonable agreement among the views of a number of capable individuals whose collective interests provide to the greatest practicable extent a balanced representation of producers, consumers, users and others with relevant interests, as may be appropriate to the specific subject.

Preparation Of Standards Documents

The following is an outline of the procedure which must be followed in the preparation of documents:

1. The preparation of standards documents is undertaken upon the Standards Council authorisation. This may arise out of requests from national organisations, Bureau staff, or technical committees. If the project is approved by the Council, it is referred to the appropriate committee, or if none exists a new committee is formed, or the project is allotted to the Bureau Staff.
2. If necessary, when the final draft is ready, any other Minister who might be responsible for any area which the standard may affect, is approached to obtain formal concurrence.
3. The final draft document is made available for general comments. In addition, copies are forwarded to those known to be interested in the subject.
4. The Technical Committee considers all the comments received and recommends a final document to the Standards Council for approval.

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5. The Standards Council approves the document and notifies the Minister for its publication.
6. The declaration of the standard is gazetted and copies placed on sale.
7. On the recommendation of the Standards Council, the Minister may declare a standard compulsory.
8. Amendments to, and revisions of standards normally require the same procedure as is applied to the preparation of the original standard.

Purchase of Guyana Standards should be addressed to Guyana National Bureau of Standards, 77 W 1/2 Hadfield Street, Werk-en-Rust, Georgetown, GUYANA.

SECOND SCHEDULE

GYS 9: 1994

**GUYANA STANDARD
SPECIFICATION
FOR
THE LABELLING OF COMMODITIES**

Part II: Labelling of Prepackaged Goods

1.0 SCOPE

This standard sets out the requirements for the information to be included on labels of goods prepackaged for retail sale, the method of display of such information, and where necessary, the wording

to be used.

This standard does not apply to the following:

- (a) goods or classes of goods where different or additional information is prescribed by any Guyana Standard or model regulations approved by the Authority concerned.
- (b) goods intended for export only, which comply with the requirements of standards or laws on labelling in force in the country to which they are being exported.
- (c) cases where any Guyana Standard for any goods or classes of goods make differing provisions for labelling in such cases, the provision of that standard shall prevail over the provisions of this standard.
- (d) gift-wrapped goods.

This standard must be used with Part I of this series. GYS 10: 1994, Labelling of Commodities, Part I - General Principles.

2.0 DEFINITIONS

For the purpose of this standard the following definitions shall apply.

2.1 **Address:** the street of the principal place of business or registered office of:

- (a) the manufacturer or packer of the goods; or

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- (b) the person for whom the goods are manufactured or packaged.

In the case of imported goods, the address shall consist of the name of the place where the principal office of the business is located and the name of the country of origin. The name and address of the importer shall also be included on the label.

- 2.2 **Bulk container:** a container in which packages or commodities are placed and in which packages or commodities are not intended to be retained when they are sold by way of retail.
- 2.3 **Combination package:** a package intended for retail sale, which contains two or more individual packages or units of dissimilar commodities.
- 2.4 **Commodity in package form:** a commodity packaged in any manner in advance of sale. Also includes an individual item or lot of any commodity not in package form, but which displays a selling price based on an established price per unit of weight or measure.
- 2.5 **Common name of any goods:** the name by which the goods are described in Guyana or any name for those goods that are used in trade, art, craft, science, industry or occupation in countries using the English Language (whether or not the name is in English). Also includes any name used in a standard declared by the Guyana National Bureau of Standards for those goods.
- 2.6 **Competent authority:** a minister, ministry, department of government or statutory body in Guyana, administering any law regulating the

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labelling of goods.

- 2.7 **Country of origin:** the country where the nature or quality of the goods was last changed to a significant extent, other than by packaging.
- 2.8 **Date mark:** any date by which the age of an article may be determined if it is subject to deterioration in the course of distribution through trade.
- 2.9 **Date of minimum durability:** in the case of food, this shall be the date until which the food retains its specific properties when properly stored.
- 2.10 **Label:** any legend, word or mark attached to, included in, belonging to, or accompanying any goods or package containing goods.
- 2.11 **Labelling:** the label, as well as any matter written, printed, stencilled, marked or embossed, related to and accompanying the goods.
- 2.12 **Manufacturer:** the person who manufactures, produces, processes, prepares or prepackages any goods for retail sale, or the person who sells any goods under a trade name controlled by him. It includes the importer of the goods.
- 2.13 **Multiunit package:** a package containing two or more individual packages of the same commodity in the same quantity, with individual packages intended to be sold as part of the multiunit package but capable of being sold individually, in full compliance with all requirements of this standard.

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- 2.14 **Net contents:** the quantity of goods containing in a package as measured in terms of a unit of measurement of length, volume, weight (or mass), or number, when the package or packaging materials have been separated from the goods.
- 2.15 **Ornamental container:** a container that, except on the bottom, does not have any promotional or advertising material thereon other than a trade mark or common name, and because of its shape or texture or any design appearing on its surface, appears to be a decorative ornament and is sold as a decorative ornament in addition to being sold as the container of a product.
- 2.16 **Package:** any container, wrapper, conforming band or card in, or on which any goods are enclosed for use in the delivery or display of that commodity to retail purchasers. It does not include package lines, bulk containers, shipping containers or other wrapping or box not customarily displayed to the consumer or purchaser at the point of retail sale.
- 2.17 **Person:** any individual, partnership, company, corporation, association or society.
- 2.18 **Prepackaged goods:** goods that are placed in advance of sale in the package for which it is intended for retail sale, and in which it may be sold, used or purchased without further repackaging.
- 2.19 **Principal display panel or main panel:** the part of the package which is most likely to be displayed, presented, shown or examined under the customary conditions of display for retail sale.
- 2:20 **Retail price:** the price set or asked by a retailer for:

- (a) one or more specified number of articles of goods; or
 - (b) one or more specified number of units of measurement of goods.
- 2.21 **Sell:** includes the process by which goods are:
- (a) offered, exposed or held in possession for sale;
 - (b) displayed in such a manner as to lead to a reasonable belief that the good(s) so displayed is/are intended for sale.
- 2.22 **Shipping container:** any container intended to protect goods during transport and which is not customarily used to store the goods when displayed for sale.
- 2.23 **Unit of measurement:** any unit in the SI system of units and the Imperial System of units or any other prescribed by law for use in trade, science, the arts, or any other occupation to measure the properties of an article.
- 2.24 **Variety package:** a package intended for retail sale, which contains two or more individual packages or units of similar not identical commodities.
- 2.25 **Warranty or Guarantee:** an undertaking given by a vendor, manufacturer, distributor or supplier to a buyer or consumer with respect to any goods or part of goods relating to any of the following matters:
- (a) safety;

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- (b) quantity;
- (c) quality;
- (d) composition;
- (e) performance;
- (f) lifespan;
- (g) durability;
- (h) repair and maintenance services;
- (i) replacement of goods if found defective;
- (j) compensation to the buyer or consumer for any undue hardships resulting from use of any defective goods supplied;
- (k) any other related matter not included under (a) to (j) above.

3.0 GENERAL REQUIREMENTS

No label declaration, method or presentation or publicity concerning the product shall be made in such a manner as is likely to mislead the purchaser and/or consumer as to the true nature of the composition of the product as a whole.

Each package of prepackaged goods shall be labelled with the following information:

- (a) the common name of the goods together with any brand name or registered trade

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name;

- (b) an accurate declaration of the net contents of the package subject to such tolerance as may be allowed in appropriate units of measurements,
- (c) the name and identifiable business address of the processor, manufacturer, packer, importer or distributor and the country of origin;
- (d) an accurate description of the major ingredients or components of the goods, as recommended by the Guyana National Bureau of Standards;
- (e) a datemark or date of minimum durability, where an indication of the age of the goods is likely to be useful to the consumer or purchaser.

3.1 Presentation Of Information

All information required to be carried on a label shall be clear, prominently displayed and readily legible by the consumer under normal conditions of purchase and use. No statements shall be in letters of less than 1.58 mm (1/16 in) in height.

The required information shall not be obscured by designs or otherwise written, printed on graphic material. It shall be so written, and in such colour or colours as to afford a distinct contrast to the background.

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The information required by 3.2 parts (a) and (b) shall be placed on the principal display panel of the package, that is to say, that part of the package that is most likely to be displayed or visible to the purchaser or consumer at the point of sale.

The information required by 3.2 parts (c),(d) and (e) shall be shown on any part of the label except that part of the label, if any, applied to the bottom of a container. Such information shall however appear together on the same part of the label and shall not be separated by design or non-mandatory information.

All statements required by 3.2 shall be in English Language except where the common name, manufacturer's name or address are in other languages.

All statements required by 3.2 shall be printed or written using the English alphabet with or without accent signs.

All numbers relating net contents stated on the label shall be given in Arabic numerals or in words.

4.0 **DETAILED REQUIREMENTS**

4.1 **Prevention of Deception:**

A label on a package of prepackaged goods may contain other information, designs, symbols or pictorial matters, provided that no word, illustrations, symbols, or other matters are used:

- (a) to give an erroneous impression as to the net content of the package;

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- (b) to give an erroneous impression as to any ingredient or component of the goods, or that the goods contain an ingredient or component that is not in fact contained in it;
- (c) to refer to the nature, origin, type, quality, performance, function or method of manufacture or production of the goods that is likely to give an erroneous impression as to the matter described or depicted;
- (d) to give an erroneous impression as to the country or origin of the goods;
- (e) to give an erroneous impression as to the price or unit price of the goods;
- (f) to give an erroneous impression as to the ease of maintenance or repair of the goods, or as to the availability of the goods;
- (g) to give an undertaking or warranty, expressed or implied which cannot be satisfied by the product or the manufacturer.

4.2 **Common Name**

This shall be the common or usual name of the commodity a generic name or other appropriately descriptive term such as a statement of function, or the name required by or specified in any applicable regulation.

It shall appear on the principal display panel in such a position as to be easily read at point of sale.

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It shall be in clear, contrasting type and of such type size as to be easily legible at point of sale.

It shall not be crowded or obscured by graphical material, vignettes, design or any information additional to that required by regulation.

4.3 Net Contents

This shall be stated in terms of "NET CONTENTS", or "NET WEIGHT", followed by an accurate declaration of the quantity of product contained in the package.

It shall be expressed in terms of:

- (a) fluid measure if the product is a liquid, or weight if the commodity is solid, semi-solid, viscous, or a mixture of solid and liquid;
- (b) numerical count, measure or a combination of numerical count, weight, size or measure;
- (c) any firmly established general consumer usage or trade custom.

The statement shall appear on the principal display panel in the lower third of the label and in lines generally parallel to the base on which the package rests.

It shall be in a type size not less than that specified in Table 1. Where statements are blown, embossed or moulded on a glass or plastic surface, the letter sizes specified in Table 1 shall be increased by 1.58 mm (1/16 in).

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**Table 1 - Required Minimum Letter size for
net quantity of declaration**

Area of principal display panel (in ²)	Minimum height of letters (taken as the lower case 'o')
Less than or equal to 5	1/16
5 but 25	1/8
Equal to or 25 but 100	3/16
Equal to or 100 but 400	¼
Equal to or 400	½

The statement shall be in clear contrast to the background on which it appears, and shall be clearly separated from other printed label information and graphic design above and below by a space not less than the height of the letter "N" of the declaration, and to the side by a space not less than twice the width of the letter "N" of the declaration.

4.4 Name and address of manufacturer

The name and address of the manufacturer shall be the name and street address of the registered place of business of the manufacturer, packer or distributor of the product. It shall be preceded by the words "**Manufactured by ...**" "**Packed by ...**" "**Distributed by ...**" as applicable.

The country of origin shall be prominently and clearly stated as "**Product of...**" with the blank to be filled in accordingly.

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Labels of imported goods may bear the words "**Imported by ...**" followed by the name of the importer or sole distributor or persons responsible for the importation together with the street address of the principal place of business in Guyana of such person.

4.5 **Date marking/Date of minimum durability**

Where the goods are liable to deteriorate within a period of 6 months after the date of manufacture or packaging so that the quality, safety, hygiene or other desirable characteristic is not likely to be maintained, a date mark shall be placed on the goods, on the label or on the package, and any bulk container or shipping container. Such a date mark shall not be defaced or removed from the goods or from the label.

Where it is appropriate that the date of minimum durability shall be given, it may be indicated by the words "**Best used before**" followed by the date, or "**not guaranteed after**" followed by the date.

4.6 **Multiunit Package**

Where individual units of a multiunit package are intended for individual retail sale, separate from the multiunit package, each shall be labelled in accordance with the requirements of this standard.

Where the multiunit package is intended for retail sale as a unit, the label of the unit package shall show:

- (a) the number of products of units;
- (b) the common name of each product or unit;

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- (c) the quantity of each individual unit;
- (d) the total quantity of the contents of the multiunit package.

Where such grades are sold in trade by weight, (a), (c) and (d) shall be represented by the net weight of the total quantity of the contents of each individual unit.

Where prepackaged goods are sold as one unit, but consist of two or more unpackaged products, the unit shall bear the information as required by this standard.

Combination packages and variety packages shall conform with the requirements of 4.6.1, 4.6.2 and 4.6.3.

4.7 **Principal Display Panel**

The principal display panel shall be:

- (a) in the case of a box, the side or surface commonly displayed;
- (b) in the case of a bag with sides or equal dimensions, one of these sides;
- (c) in the case of a cylindrical container, 40% of the total surface area which is most likely to be displayed;
- (d) in the case of a bag with sides of more than one size, the side with the largest area;
- (e) in the case of a container that has a wrapper

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or confining band is much narrower than the goods contained therein, the total area of one side of a ticket or tag attached to the goods;

- (f) in the case of other shaped containers the obvious principal display (e.g. the top of a can of shoe polish);
- (g) in the case of an ornamental package, the bottom of the package;
- (h) in the case of an article attached to a display card with which it is sold, the area of the display card of the package.

4.8 **Additional Information**

4.8.1 **Warranties Or Guarantees**

No reference shall be made on a label or on a package to any warranty or guarantee for any goods unless a copy of the warranty or guarantee is given to the purchaser or consumer at the time he takes possession of the goods.

4.8.2 **Instructions For Use**

Where any risk to the safety or health of a consumer or user, or where any significant deterioration of the quality, performance, life, durability or other property of the goods may result if the goods are not properly handled, transported, used, installed, cared for, maintained or repaired, any appropriated hazard symbol and instructions for use, in English, shall be provided either on the label of the package, on the goods or on a card or paper accompanying the goods

or package.

4.9 Exemptions

Goods which are repackaged by the retailer need not be labelled with the information required by 3.2 so long as they are sold or displayed or exposed for sale in close proximity to a notice, card or statement in clearly discernible lettering containing the information required by 3.2.

Prepackaged goods of less than 15g (1/2 oz) net weight are exempt from declaration of net quantity and listing ingredients on their labels.

Prepackaged products whose package consist of a wrapper or confining band less than 12.7 mm (1/2 in) in width are exempt from the information required by 3.2.

Where the area of the principal display panel of a container is 10 cm² (1.55 in²) or less, the information required to be shown on the principal display panel, other than the declaration of net quantity may be in letters of not less than 0.79 mm (1/32 in) in height.

5.0 RESPONSIBILITY FOR LABELLING

It is the responsibility of any person who sells or distributes any goods to see that they are properly labelled as required by this standard.

6.0 CONFLICT

In the event of conflict between this standard and a supplementary specification referring to particular

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goods or classes of goods, the latter shall prevail.

70 USE OF LABELS WHICH DO NOT SATISFY THE REQUIREMENTS

The Guyana National Bureau of Standards may at the request of any manufacturer, processor, importer or distributor of the goods, grant a permit in writing to waive the requirements of this standard, unconditionally or subject to such terms and conditions as may be specified in the permit.

NOTE: Applicants may submit labels or drafts of labels to the Bureau of Standards for advice as to whether they comply with the provision of this or any other Guyanese standard referring to labelling.

National Standards Council

National Standards Council is the controlling body of the Guyana National Bureau of Standards (GNBS) and is responsible for the policy and general administration of the Bureau.

The Council is appointed by the Minister as indicated in the GNBS Act. Using its powers in the Standards Act, the Council establishes committees for specified purposes.

A Guyana Standard is a standard which has been approved by the Standards Council and one which reflects reasonable agreement among the views of a number of capable individuals whose collective interests provide to the greatest practicable extent a balanced representation of producers, consumers, users and others with relevant interests, as may be

appropriate to the specific subject.

Preparation of Standards Documents

The following is an outline of the procedure which must be followed in the preparation of documents:

1. The preparation of standards documents is undertaken upon the Standards Council authorisation. This may arise out of requests from national organisations, Bureau staff, or technical committees. If the project is approved by the Council, it is referred to the appropriate committee, or if none exists a new committee is formed, or the project is allotted to the Bureau Staff.
2. If necessary, when the final draft is ready, any other Minister who might be responsible for any area which the standard may affect, is approached to obtain formal concurrence.
3. The final draft document is made available for general comments. In addition, copies are forwarded to those known to be interested in the subject.
4. The Technical Committee considers all the comments received and recommends a final document to the Standards Council for approval.
5. The Standards Council approves the document and notifies the Minister for its publication.

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6. The declaration of the standard is gazetted and copies placed on sale.
7. On the recommendation of the Standards Council, the Minister may declare a standard compulsory.
8. Amendments to, and revisions of standards normally require the same procedure as is applied to the preparation of the original standard.

Purchase of Guyana Standards should be addressed to Guyana National Bureau of Standards, 17 W¹/₂ Hadfield Street, Werk-en-Rust, Georgetown, GUYANA.

THIRD SCHEDULE

GYS 9-4: 1997

**GUYANA STANDARD SPECIFICATION FOR
LABELLING OF COMMODITIES**

PART 4: Labelling of Footwear

1.0 SCOPE

This standard relates to the labelling of all footwear and shall be read in conjunction with GYS 9-1: 1994 Guyana Standard Specification for Labelling of Commodities, Part 1 - General Principles.

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2.0 DEFINITIONS

- 2.1 **footwear:** Shoes, boots, sandals and slippers of all kind within the scope given in clause 1.
- 2.2 **identification number:** The number assigned to a manufacturer by the Guyana National Bureau of Standards. This number may be used in lieu of the manufacturer's name and address on the footwear. This number does not imply any approval or recognition of the footwear by the Bureau. It serves only to facilitate communication with its manufacturer(s) and will be considered in the same context as the manufacturer's name and address.
- 2.3 **size of the shoe:** The measurement or measurements of a foot deemed to be sufficient to provide a shoe that will fit a foot corresponding to that of those measurements.
- 2.4 **length of the foot:** The horizontal distance between the perpendiculars in contact with the end of the most prominent toe and the most prominent part of the heel measured with the subject standing (the weight of the body equally distributed on both feet) and wearing hose appropriate to the type of boot or shoe (Fig. 1).
- 2.5 **width of the foot:** The horizontal distance between vertical lines in contact with the first and fifth metatarsophalangeal joints (see fig. 2), under conditions identical with those previously used for measurement of length.
- 2.6 **average foot:** A normal foot defined from the examination of statistical results and anatomical

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studies.

- 2.7 **mondopoint:** The size of a shoe expressed in millimetres based on the size of foot it is intended to fit.

The mondopoint size marking using SI units will comprise two numbers, for example 240/95. The first number is the size; it is an indication of the length of the foot fitted by the shoe, measured in millimetres, the second number is the width index; it is an indication of the joint girth of the foot fitted, expressed as a percentage of its length. Three millimetres must be added to the measured length of a child's foot in order to arrive at the correct mondopoint size. This is a growth allowance: it is logical that a growing foot which measures, say, 240mm at the time of purchase ought to have a larger shoe than an adult foot which measures 240 mm.

3.0 LABELLING

- 3.1 The label on each item of footwear shall conform with the following minimum requirements:

- (a) name and address of the manufacturer or supplier or his identification number;
- (b) size of item shall be stated in Mondopoint;
- (c) country of origin of the manufactured item;
- (d) the materials from which the sole and the upper are made: (e.g. leather, genuine leather, synthetic or man-made materials);
- (e) colour;

requirements at 3.1 (a), (b), (c) and (d) shall appear on the permanent label on the shoe; requirements at (c) may appear on an attached tag.

3.2 The label shall be legible and durable up to the point of sale and shall not be false or deceptive. It shall be affixed or attached in such a manner not to impair the quality of the shoe.

3.3 The label on the container in which footwear is sold shall conform with the following:

(a) name and address of manufacturer or supplier;

(b) size of the item shall be stated in Mondopoint;

(c) The materials from which the sole and the uppers are made (e.g. leather, genuine leather, synthetic or man-made materials);

(d) colour.

3.4 It is the responsibility of any person who sells or distributes footwear to ensure that it is labelled in accordance with the requirements of this standard.

4.0 SIZING SYSTEM

4.1 The sizing system shall be based on the length of the average foot fitted by the footwear.

Note: The sizing system may also include the width of the foot.

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- 4.2 Each measurement shall be expressed in a whole number of millimetres.

Note: This requirement does not preclude the use of codes as an additional means of expressing width.

5.0 **SIZE MARKING AND LABELLING**

- 5.1 The size marking shall be expressed as specified in 5.2 or 5.3, using characters which shall be at least 3 mm in height.

5.2 **Length of measurement only**

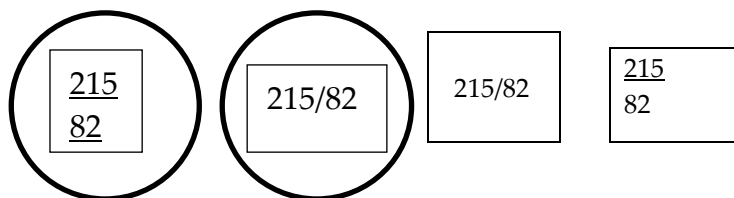
The length measurement shall be marked on the footwear.

Note: The number should preferably be enclosed in a rectangular or oval figure F for clarity and ease of recognition.

5.3 **Length and Width Measurements**

The length measurement shall be stated first, following by the width measurement and the two numbers shall be separated by a solidus or other line.

Note: The number shall preferably be enclosed in a rectangular or oval figure for clarity and ease of recognition. For example, 215/82



60. **TRANSITION FROM EXISTING SYSTEMS**

Any existing system of footwear sizing, other than the Mondopoint system shall be adopted to the Mondopoint system by conversion length (expressed in millimetres of the average foot fitted). Each size may also include a designation of the width in millimetres or by means of a code.

7.0 **CONFORMITY**

To conform to this standard, the label shall comply with:

- (a) GYS 9-1: 1994 Labelling of Commodities, Part I: General Principles
- (b) 3.1 and 3.2 above.

8.0 **APPROVAL OF LABELS**

Labels may be submitted to the Guyana National Bureau of Standards at the design stage for approval.

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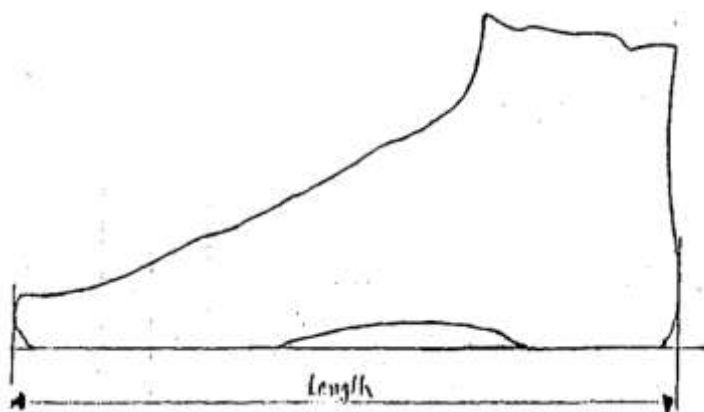


Figure 1. Length of foot.

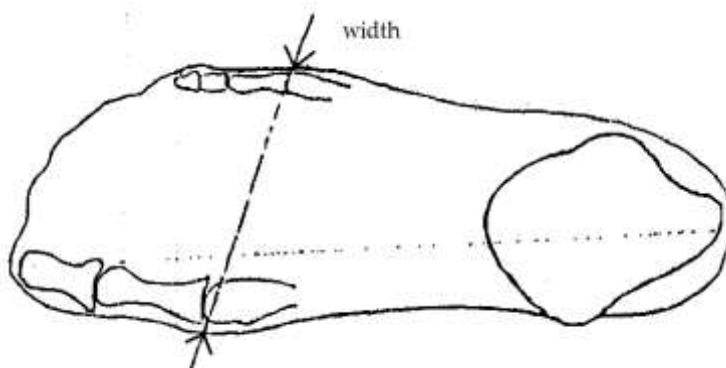


Figure 2. Width of foot

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FOURTH SCHEDULE GYS 28 : 1997

GUYANA STANDARD SPECIFICATION FOR

SAFETY MATCHES JS 34 : 1974

GUYANA NATIONAL BUREAU OF STANDARDS

FOREWORD

This Jamaican Standard was prepared as a result of complaints from Consumer groups and other organizations who were concerned that matches should be as safe as possible to handle and should function efficiently.

The automatic nature of the manufacturing processes lends itself very well to consistent checking of production, and it was therefore decided, that the most practical way in which control could be exercised and a standard product be maintained was by methods of test for application in the works, which would ensure that the product complied with specific requirements and any departure therefrom would be detected and could be dealt with quickly.

The limits imposed by the specification are, in most cases, related to the average hourly test results accumulated over a period of one day.

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In the normal course of determining a daily average the manufacturer will individually examine over 2,000 matches. Test results based on smaller samples must inevitably show wider fluctuations and will, occasionally, record faults in excess of the limits laid down by the specification as applying exclusively to the daily average.

For this reason effective methods of test by the purchaser are impracticable and will provide misleading results unless the size of the sample tested is of a similar order to that examined by the manufacturer in the determination of his daily average.

The Jamaican Bureau of Standards will itself make periodical checks where the manufacturer becomes a licensee under the certification mark scheme involving the use of the Bureau's Standard Mark.

It must be clearly understood that with an article so small and manufactured in such vast quantities from a naturally variable material, it is impossible to ensure that none of the specified defects will occur, but it is also certain that if the test methods are applied during manufacture the failures will be kept to a minimum and they are likely to be substantially less than they otherwise would be. Some faults covered are of rare occurrence and the majority very infrequent.

JAMAICAN STANDARD SPECIFICATION FOR MATCHES

GENERAL

1. SCOPE

This specification gives production testing requirements for 'Safety' wood matches, 'Strike-

anywhere' wood matches, and Book matches when the latter are in covers not exceeding three inches* in width.

*Owing to the risk of inadvertently igniting all the matches simultaneously from carelessly striking a match, widths of book match covers in excess of three inches (76 mm) are deprecated. Book matches manufactured to comply with this standard are restricted to 3 ins. (76 mm) in width both because of the risk of igniting very long books if a match is carelessly struck across the face of such a long book when it is open, and also to limit the quantity of exposed inflammable material.

If such long books, not complying with this standard, are manufactured, the striking surface should be on the back of the cover.

2. DEFINITIONS

For the purposes of this Jamaican Standard the following definitions apply:

Batch. That portion of output of which the sampling and testing in question is representative.

Box. The container in which wooden matches reach the ultimate consumer. It normally consists of an outer part carrying the striking surface within which slides an inner tray carrying the matches.

Cover. Of Book matches. The strip of cardboard which carries the striking surface is wrapped round the matches, which are fastened to it.

Case. The container normally holding several gross of

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boxes of wood matches or several thousand books, used for bulk despatch of such boxes and books from the premises of the manufacturer.

Daily figures. The figures obtained from the tests carried out during one working day or, when shift working, during any one shift.

3. SAMPLING

Sampling shall be done separately for each kind of matches in the following manner:

- (a) Method. Samples shall be taken at evenly spaced intervals of approximately one hour throughout the working day according to the quantities specified below from –

each match machine

each dozen or half-dozen wrapping machine

each book match booking machine

One third of each sample shall be employed for the specified testing procedure. The remaining two-thirds of each sample shall be set aside and retained until the day's test results are known. In the event of failure to meet the requirements of the specification, these duplicate samples shall then be employed as laid down in paragraph 10 'Re-testing procedure'.

- (b) Quantities

- (i) Safety and Strike-anywhere matches.

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- A. Sampling for average number in box. Thirty-six boxes shall be taken from each filling machine during each hour.
- B. Sampling for examination for functioning, safety and quality.

Filled boxes. Should a box-filling machine be incorporated with the match machine, such a number of filled boxes as will contain at least 1,200 matches shall be taken, at intervals of one hour, of each brand of matches.

Loose matches. Should the operation of filling into boxes be separated from the match machine, at least 1,200 loose matches shall be taken at random in each hour.

Wrapped packets. In addition to the above, three one-dozen packets shall be taken at random from each wrapping machine at hourly intervals, or should the boxes be wrapped in half-dozen packets, six such packets shall be taken from each wrapping machine and their contents treated as three one-dozen packets.

(ii) Book Matches

- A. Uncut combs. Eighteen uncut combs, or the equivalent of at

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least 900 matches, shall be taken at hourly intervals from each book match machine.

- B. Complete books. In addition, thirty-six completed books from each booking machine shall be sampled hourly.

4. **CONDITIONING OF SAMPLES**

All samples shall be exposed in a warm dry atmosphere at $27 \pm 2^{\circ}\text{C}$ and 65 per cent \pm 5 per cent r. h. for a minimum of one hour before striking tests are carried out and the test shall be made at this temperature. The covers of samples shall be removed during this period.

TEST REQUIREMENTS

5. **EXAMINATION FOR AVERAGE NUMBER IN A BOX**

- (a) Safety and Strike-anywhere matches.

The contents of twelve boxes of the hourly sample shall be counted and the results accumulated over one day shall be averaged and recorded as 'average count'. The average count so determined shall be within the limits plus 3 per cent minus 2 per cent or plus 1 ¹/₂ matches minus 1 match, whichever is the greater, of the nominal count as marked on the box.

- (b) Book matches. This test is not applied to Book matches.

6. ABSENCE OF AFTERGLOW

The procedure of examination of samples for absence of afterglow shall be as follows:

- (a) Safety and Strike-anywhere matches. One hundred matches shall be selected at random from the combined samples taken from the match machines and the bases of the splints inserted in holes set out in square formation at $3/8 \pm 0.005$ in (9.5 ± 0.127 mm) spacing in a steel plate, the holes being of such a size as to support the matches firmly (see Fig. 2). The holes shall not be staggered as this affects the accuracy of the test.

A flame shall be applied to the outside row of matches and the plate tilted so as to ignite all the matches. The splints shall be allowed to burn away completely and, when the flame dies out the ashed remains of the splints shall be examined for afterglow. A stop-watch shall be used and if the afterglow on any match persists for more than three seconds, this shall constitute a failure. The number so found shall be recorded.

The daily number of matches failing this test shall not exceed two for every 100 matches so tested.

- (b) Book Matches. One comb from each book match machine sample shall be tested.

Ten matches spaced at approximately equal

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intervals shall be left attached to the base of the comb and the other matches removed. The end match shall be ignited and the comb tilted so as to spread the flame along the whole row of matches. If necessary the comb shall be inverted so as to promote the burning of the matches down to the base of the comb, and when the flame is about to die away the comb shall be held with the matches in a vertical position heads upwards.

Following extinction of the flame, the ashed remains of the splints shall be examined for afterglow.

A stop-watch shall be used and if the afterglow of any match persists for more than three seconds, this shall constitute a failure. The number so found shall be recorded.

The daily number of matches failing this test shall not exceed two out of every 100 matches so tested.

7. VISUAL EXAMINATION

(a) Matches. The remainder of the sample from the match machines shall be sampled at random.

250 matches shall be taken for Safety and Strike-anywhere matches, and 120 matches, obtained by subdividing the comb, shall be taken for Book Matches.

The matches shall be examined for the following:

- (i) Badly distorted heads. Heads shall be deemed to be badly distorted when they show pronounced abnormalities in shape or surface, especially heads which carry sharply defined peaks.

The number of distorted heads shall be recorded and the total accumulated in one day shall not exceed two out of every 100 of the matches examined.

Such matches shall be removed from the sample and not included in further examinations.

- (ii) Fractured heads. Heads shall be deemed to be fractured when their surface has been broken or cracked.

The number of matches with fractured heads shall be recorded and the total accumulated in one day shall not exceed one out of every 100 matches examined.

Matches with fractured heads shall be removed from the sample and not included in further examinations.

- (iii) Doubles. Heads linked together by a bridge of composition shall be termed doubles. The number of doubles accumulated over one day shall not exceed an average of one out of every 100 of the total number of matches examined.

Doubles shall be removed from the sample

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and not employed for further tests.

- (iv) Splints with head missing. The number of splints without heads shall be recorded and the total accumulated in one day shall not exceed an average of one out of every 100 of the matches examined. Such matches shall be removed from the sample and not used for any further tests.
- (b) Boxes. A visual examination of the application of the friction paint shall be made as follows:
 - (i) Safety Matches. The twelve boxes examined under subparagraph 8b(i) shall be employed for this test.

The friction paint shall have been applied to the whole or part of the sides of the outer casing and none shall have appeared on the inside of the box.

The daily number of boxes failing this test shall not exceed one out of every 100 tested.

- (ii) Book Matches. Twelve of the thirty-six sampled books shall be examined for application of friction paint.

The friction paint shall have been applied in the form of a strip near the base of the book match cover.

Stray splashes of paint shall not be

present on the inside of the cover within one inch of the match heads.

The daily number of books failing this test shall not exceed one out of every 100 tested.

- (iii) Strike-anywhere matches. The boxes do not need visual examination.

8. FUNCTIONAL EXAMINATION

- (a) Matches (all types). The remainder of the matches, after visual examination, are used for these tests.

In these tests the matches shall be held firmly as shown in Fig. 1 between the first finger and thumb and struck with the minimum pressure necessary to ensure ignition.

- (i) Splints which break (applicable to Safety and Strike-anywhere matches only). The number of splints which break when struck as indicated above, shall not exceed five out of every 100 matches tested.
- (ii) Heads which drop hot ash (applicable to Safety, Strike-anywhere and Book matches). During the striking tests the matches shall be held over a sheet of white paper. Any burn marks resulting from the dropping of hot ash shall be noted. The daily number

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of matches that yield a positive result shall not exceed one out of every 100 matches tested.

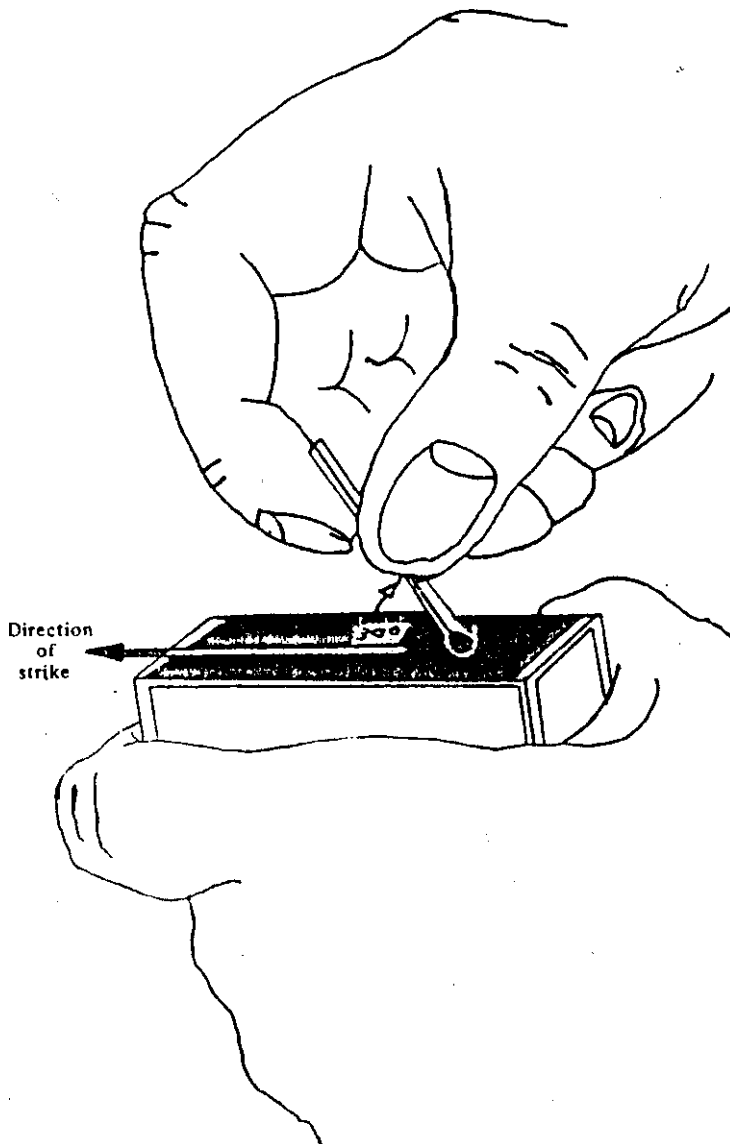
- (iii) Heads which 'shoot' or explode (applicable to Safety, Strike-anywhere and Book matches). During the striking tests, a record shall be made of heads which burn, violently, scattering hot particles, or explode on striking on the friction paint, or sandstrip provided, when employing the minimum pressure necessary to secure ignition.

The daily number of matches that yield a positive result shall not exceed one out of every 100 matches tested.

- (iv) Transfer of flame from the match head to the splint (applicable to Safety, Strike-anywhere and Book matches). After striking as described in subparagraph 8a the match shall be immediately held in a horizontal position clear of the box, in a draught-free atmosphere.

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The match is struck along the box with an upward sweep and held clear of the box to avoid damage to the friction paint. See subparagraph 8a

Figure 1. Method of striking matches.

100 holes (10 X 10)
At 3/8 in centres

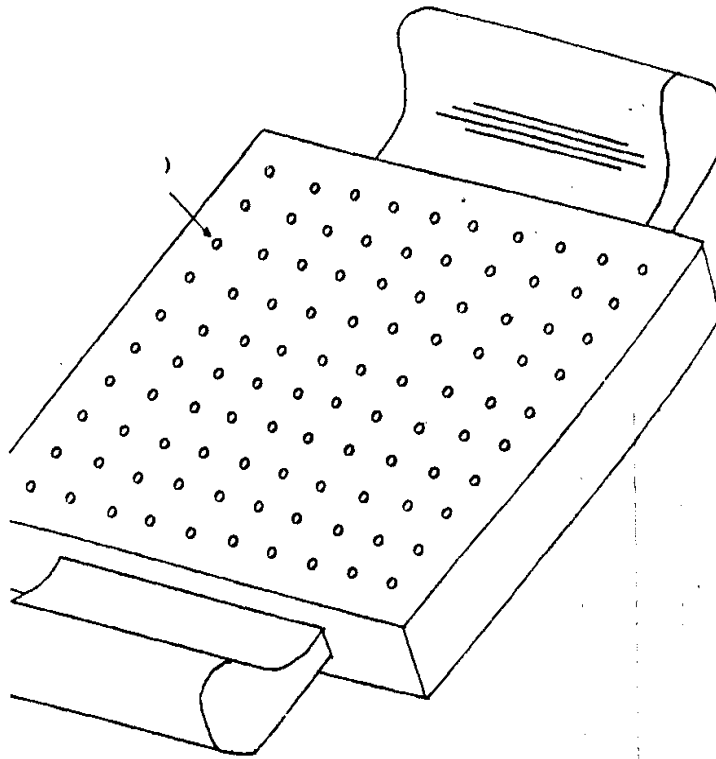


Fig. 2. Perforated metal plate. (See subparagraph 6a)

The flame shall readily transfer from the match head to the splint. The daily number of matches failing this test shall not exceed one out of every 100 matches tested.

(b) Boxes (applicable to Safety and Strike-

anywhere matches).

- (i) Correct fit of inner tray. Twelve boxes, i.e. the contents of one of the dozen or two of the half-dozen sampled packets, shall be examined as follows:

Each box shall, in turn, be lightly held by the outer casing in a vertical position. The inner tray shall not drop out under the weight of its contents.

The daily number of boxes failing this test shall not exceed one out of every 100 tested.

- (c) Friction paint (applicable to Safety and Book matches). Four of the twelve boxes and four books employed in the previous tests shall be selected at random for the testing of the wearing properties and non-ignition of the friction paint.

- (i) Wearing properties. It shall be possible to strike the contents of the box or book on half the area of friction paint provided.

The daily number of boxes or books failing this test shall not exceed one.

- (ii) Non-ignition. During the carrying out of the foregoing test for wearing properties of the friction paint, the paint shall not take fire and burn following striking of a match.

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Instances in which such burning occurs and embraces an area greater than $1/16 \text{ in}^2$ (40mm^2) shall be recorded.

The daily number of such failures shall not exceed one.

- (d) Sandstrip (applicable to Strike-anywhere matches). Four of the twelve boxes employed in previous tests shall be selected at random and tested for wearing properties of the sandstrip as follows:

It shall be possible to strike the contents of the box on half the area of sandstrip provided.

The daily number of boxes failing this test shall not exceed one.

CHANGES IN MANUFACTURE

9. ADDITIONAL TESTS

In addition to the foregoing the following tests are to be carried out on occasions when a change is made in formulation or manufacturing procedure.

One box or book shall be selected at random for the following test:

- (a) Non-ignition (applicable to Safety and Book matches). It shall not be possible to ignite any of the matches by rubbing on 00 glass paper.

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- (b) Ignition temperature (applicable to Safety, Strike-anywhere and Book matches). The matches shall not ignite under the following conditions:
- (i) Safety and Book matches. Twelve matches shall be supported in holes approximately $\frac{3}{8}$ in (9.5mm) apart in a metal plate. (For Book matches, a length of comb containing 12 matches shall be supported at its base). The matches shall be introduced into an oven thermostatically controlled at 170°C and maintained at this temperature for ten minutes. Under these conditions the matches shall not ignite.
 - (ii) Strike-anywhere matches. Twelve matches shall be supported in holes approximately $\frac{3}{8}$ in (9.5mm) apart in a metal plate. The matches shall be introduced into an oven thermostatically controlled at 140°C and maintained at this temperature for ten minutes. Under these conditions the matches shall not ignite.

RE-TESTING

10. RE-TESTING PROCEDURE

In instances of failure to pass the initial tests for compliance with the specification, the following procedure shall be adopted:

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NOTE: In the above test the introduction of the matches may cause a fall in temperature of the oven. The ten minutes shall be timed from the re-establishment of the specified temperature.

Should the day's results under one or more headings fail to meet the requirements of the specification, the whole of the duplicate samples of double size relating to the product of the machine where failure has occurred shall be tested as laid down under the headings where failure has been recorded.

An amended day's failures shall be calculated by combining the results of the original and duplicate tests. This final figure shall be recorded.

If this amended day's failure does not meet the requirements of the specification, the whole of the day's product of the machine where failure to comply with the specification has been recorded shall be set aside for inspection and, if feasible, the removal of faulty products.

Under headings where only a single failure in the initial testing is permitted the product shall be passed only if the combined failures on the original and duplicate tests does not exceed three.

Should the defect causing initial failure be attributable to a fault in the functioning of a machine, and should it be feasible by means of an inspection process to remove the faulty products, the manufacturer shall have the option of carrying out such removal and submitting the remainder to re-testing.

Random samples of the remainder shall then be taken, equal in size and number to the original samples. The

full testing procedure shall be repeated, including the testing of reserve samples, should the initial tests again yield results failing to comply with specification.

Should these final averages be, in all respects, within the required tolerances, the day's product shall then be passed as complying with the specification.

Should these final averages fail to meet the requirements of the specification, under one or more headings, or should the manufacturer consider it impracticable to attempt to remove the faulty products, the entire product of the machine to which the tests apply shall be rejected.

MARKING

11. MARKING BOXES. BOOKS

- (a) Boxes and books. The match box or book cover actually containing the matches shall have marked on it:
 - (i) The manufacturer's name or trade mark (brand name).
 - (ii) The average contents of the container for loose matches.

STANDARDS COUNCIL

The Standards Council is the controlling body of the

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Bureau of Standards and is responsible for the policy and general administration of the Bureau.

The Council is appointed by the Minister in the manner provided for in the Standards Act, 1968. Using its powers in the Standards Act, the Council appoints Committees for specified purposes.

PREPARATION OF STANDARDS DOCUMENTS

The following is an outline of the procedure which must be followed in the preparation of documents:

1. The preparation of standards documents is undertaken upon the Standards Council's authorisation. This may arise out of representation from National organisations or existing Bureau of Standards committees or Bureau staff. If the project is approved, it is referred to the appropriate sectional committee or if none exists a new committee is formed, or the project is allotted to Bureau staff.
2. If necessary, when the final draft of a standard specification is ready, the Council authorises an approach to the Minister in order to obtain the formal concurrence of any other Minister who may be responsible for any area which the specification may affect.
3. With the approval of the Standards Council, the draft document is made available for general public comment. All interested parties, by means of a notice in the Press, are

invited to comment. In addition, copies are forwarded to those known to be interested in the subject.

4. The Committee considers all the comments received and recommends a final document to the Standards Council.
5. The Standards Council recommends the document to the Minister for publication.
6. The Minister approves the recommendation of the Standards Council.
7. The declaration of the specification is Gazetted and copies placed on sale.
8. On the recommendation of the Standards Council the Minister may declare a standard specification to be a compulsory standard specification.
9. Amendments to, and revisions of standard specifications normally require the same procedure as is applied to the preparation of the original specification.

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FIFTH SCHEDULE

GYS 66: 1997

GUYANA STANDARD SPECIFICATION

FOR

DEFINITION OF TERMS USED

IN THE PNEUMATIC TYRE INDUSTRY

1.0 SCOPE

- 1.1 This Guyana Standard is a glossary which defines terms related to passenger car and commercial vehicle tyres. The standard is divided into six sections dealing respectively with general definitions, definitions related to structure, main components, tyre dimensions, service, injury and repair.

2.0 GENERAL DEFINITIONS

- 2.1 **Buffing** means the preparation of the original tyre surface prior to the application of unvulcanized material.
- 2.2 **Building** means the application of tread rubber to the buffed and cemented surface of the tyre.
- 2.3 **Cure** means the conditions necessary to produce a given state of vulcanization.
- 2.4 **Fulcapping** means a process in which new tread rubber is applied to that area of casing normally in contact with the road extending over the shoulder

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area.

- 2.5 **Grown tyre** means a tyre which has undergone expansion due to use in service.
- 2.6 **Mold cure method** means the method that utilizes uncured tread rubber applied to the worn tyre and then placed in heated molds which apply heat and pressure to form the tread patterns and cure and bond the new tread rubber to the tyre.
- 2.7 **New tyre** means a tyre which has been neither used nor subjected to a retreading operation.
- 2.8 **Overflow** means the spew-out of tread compound at the mould parting line or at the edge of the matrix skirt.
- 2.9 **Pneumatic tyre (tire)** means a mechanical device made of rubber, chemicals, fabric and steel or other materials, which, when mounted on an automotive wheel, provides traction and contains the gas or fluid that sustains the load.
- 2.10 **Pre-cured method** means the method that utilizes the application of a pre-cured tread with the tread pattern already cured into the tread rubber. The pre-cured tread is applied to the worn tyre with a layer of uncured cushion gum. The worn tyre and applied tread will then be placed in a chamber (autoclave) where heat and pressure bond the pre-cured tread, cushion gum and worn tyre.
- 2.11 **Recapping** means the process in which rubber is removed from worn tread and over the shoulders and new rubber is then applied.

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- 2.12 **Regroovable tyre** means a tyre, either original tread or retread, designed and constructed with sufficient tread material to permit renewal of the tread pattern or the generation of a new tread pattern in a manner which conforms to this standard.
- 2.13 **Regrooved tyre** means a tyre, either original or retread, on which the tread pattern has been renewed or a new tread has been produced by cutting into the tread of a worn tyre to a depth equal to or deeper than the moulded original groove depth.
- 2.14 **Remoulding** means the process in which rubber is removed as necessary and new rubber extending from bead area to bead area, is applied.
- 2.15 **Retreading** means the generic term for used tyre reconditioning, including 2.11, 2.14 and 2.22, to extend the useful life of the tyres. It can also cover the replacement of the tread rubber only or replacement of tread and sidewall rubbers.
- 2.16 **Rim** means a metal support for a tyre or a tyre and tube assembly upon which the tyre beads are seated.
- 2.17 **Rolling circumference** means the distance the centre of the tyre (axle) moves in one revolution of the tyre under specified conditions.
- 2.18 **Rolling resistance** means a loss of energy (or energy consumed) per unit of distance.

NOTE: The SI unit conventionally used for the rolling resistance is the newton metre per metre (N.m/m). This is equivalent to the drag force newtons (N).

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2.19 **Rubber** means a macromolecular material which has, or can be given, properties of:

- (a) at room temperature, returning rapidly to the approximate shape from which it been substantially distorted by a weak stress; and
- (b) not being easily changed to any other permanent shape by the application of moderate heat and pressure.

2.20 **Spare tyre for temporary use** means a tyre which is a special type of spare tyre: it differs from tyres normally fitted to a vehicle with regard to its principal characteristics (e.g. marking dimensions, conditions of use and is intended for temporary use under restricted conditions).

2.21 **Test rim** means with reference to a tyre to be tested, any rim that is listed as appropriate for use with that tyre in accordance with the listing contained in publications, current at the date of manufacture of the tyre or any later date, of at least one of the following organizations:

- (a) The Tire and Rim Association (USA);
- (b) The European Tyre and Rim Technical Organization (Belgium);
- (c) Japan Automobile Tire Manufacturers' Association Incorporated (Japan);
- (d) Deutsche Industrie Norm (Germany);
- (e) Scandinavian Tire and Rim Organization

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(Scandinavia);

(f) The Tyre and Rim Association of Australia
(Australia); or

(g) British Standards Institution (England).

2.22 **Topcapping** means a process in which new tread rubber is applied only in that area of the casing normally in contact with the road.

2.23 **Used tyre** means a tyre which has been in service and has neither been regrooved or retreaded.

3.0 DEFINITIONS RELATED TO STRUCTURE

3.1 **Bias-belted tyre** means a pneumatic tyre structure of diagonal construction (bias ply) type in which the carcass is restricted by a belt comprising two or more layers of substantially inextensible cord material laid at alternate angles close to those of the carcass.

3.2 **Diagonal (cross) ply tyre (called bias tyre in USA)** means a pneumatic tyre in which the ply cords extend to the beads and are laid at alternate angles substantially less than 90° to the centre-line of the tread.

3.3 **Radial ply tyre** means a pneumatic tyre in which the ply cords extend to the beads and are laid substantially at 90° to the centre-line of the tread, the carcass being stabilized by an essentially inextensible circumferential belt.

4.0 DEFINITIONS RELATED TO MAIN COMPONENTS

(See Figure 1 and Figure 2)

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- 4.1 **Bead** means that part of the tyre which is shaped to fit the rim. It has a core made of one or several essentially inextensible strands with the plies wrapped around the core.
- 4.2 **Bead heel** means that part of the bead which fills the angle formed by the junction of the rim flange and the bead seat.
- 4.3 **Bead toe** means the innermost part of the bead opposite the heel.
- 4.4 **Belt (radial ply tyre)** means layer(s) of material(s) underneath the tread, laid substantially in the direction of the tread centreline, that restricts the carcass in a circumferential direction.
- 4.5 **Belt edge covering stripping** means one or more layers of heat shrinkable organic textile core fabric (e.g. nylon) placed over the belt edges of the steel-belted radial-ply tyre.
- 4.6 **Breaker (diagonal ply tyre)** means an intermediate ply between carcass and tread.
- 4.7 **Carcass (casing)** means a rubber bonded cord structure of a tyre integral with the bead, which contains the inflation pressure.
- 4.8 **Casing** means a worn tyre to which new tread rubber may be attached by retreading.
- 4.9 **Chafer** means the material in the bead area to protect the carcass against rim chafing.

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- 4.10 **Cord** means textile or non-textile strands (threads) used in various components of the tyre carcass, plies, belt, breakers, etc.
- 4.11 **Crown** means the road-contacting area lying between the shoulders of a tyre.
- 4.12 **Cushion gum** means a tacky rubber compound used for adhesion, undertread repair and build up.
- 4.13 **Groove** means the space between two adjacent tread ribs.
- 4.14 **Inner lining** means the layer of rubber, from bead to bead, on the inside of the carcass. In the case of tubeless tyres this shall have air retaining properties.
- 4.15 **Ply** means a layer of rubber-coated parallel cords.
- 4.16 **Protective breaker (commercial vehicle radial ply tyre)** means an optional strip of material embodied within the pneumatic tyre between the tread and the belt to minimize damage to the belt.
- 4.17 **Radial bracing ply (radial belt)** means a layer of material underneath the tread, substantially in the direction of the tread centreline that restricts the carcass circumferentially.
- 4.18 **Shoulder** means a transitional area between the sidewall and the tread.
- 4.19 **Sidewall** means a part of a pneumatic tyre between the tread and the bead.
- 4.20 **Sidewall rubber** means a rubber layer on the sidewall of the tyre and over the carcass which may include

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ornamental or protective ribs and fitting lines.

- 4.21 **Sipe** means one of the small grooves or channels in the tread pattern.
- 4.22 **Tread** means a part of a pneumatic tyre which normally comes in contact with the ground.
- 4.23 **Tread rib** means a tread section running circumferentially around a tyre.
- 4.24 **Tread rubber** means one of the following:
- (a) **Camelback** means tread compound extruded through a pre-determined die shape to give tread lengths of definite cross-sectional area;
 - (b) **Strip-wound** means tread compound extruded through a pre-determined die shape to form a ribbon feed which is wound on to a prepared carcass;
 - (c) **Direct extrusion** means tread compound extruded through a pre-determined die shape directly on to a prepared carcass, which is positioned to form one half of the die profile; or
 - (d) **Precured** means tread compound cured to form pattern and undertread prior to application to a prepared carcass.
- 4.25 **Tread wear indicators** means projections in the tread grooves designed to give a visual indication of the degree of wear of the tread.

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- 4.26 **Tubeless tyre** means a pneumatic tyre designed for use without an inner tube.
- 4.27 **Tyre fitting lines** means moulded lines on the outside of the upper bead area to facilitate obtaining concentricity when fitting.
- 4.28 **Undertread** means the rubber between the base of the tread grooves and the buffed casing.
- 4.29 **Winter tread (includes tyres known as “Mud and Snow or Snow”)** means a tread pattern which structure is primarily designed to ensure in mud and fresh or melting snow a performance better than that of an ordinary (road type) tyre. The tread pattern of a winter tread generally consists of groove (rib) and/or solid block elements more widely spaced than on an ordinary (road type) tyre.
- 5.0 **DEFINITIONS RELATED TO TYRE DIMENSIONS (See Figure 3)**
- 5.1 **Maximum overall tyre diameter in service - dynamic (D_{od})** means the overall diameter as defined in 5.5 plus:
- (a) manufacturing tolerances;
 - (b) tolerance for service growth; and
 - (c) allowance for dimensional changes due to centrifugal force.

NOTE: **Definition 5.1 applies only to motorcycle tyres; the allowance in (c) is to be taken into**

**account by the motorcycle manufacturer
when designing for tyre clearances.**

- 5.2 **Maximum overall tyre diameter in service - static (D_{os})** means the overall diameter as defined in 5.5 plus:
- (a) manufacturing tolerances; and
 - (b) tolerance for service growth
- 5.3 **Maximum overall tyre width in service** means the overall, width defined in 5.6 plus:
- (a) manufacturing tolerances; and
 - (b) tolerance for service growth.
- 5.4 **Nominal aspect ratio (H/S)** means one hundred times the ratio of the section height to the section width of the tyre on its theoretical rim.
- 5.5 **Overall diameter (D_o)** means the diameter of an inflated tyre at the outermost surface of the tread.
- 5.6 **Overall width (W)** means the linear distance between the outsides and the sidewalls of an inflated tyre including elevations due to labelling (markings), decorations, and protective bands or ribs.
- 5.7 **Section height (H)** means half the difference between the overall diameter and the nominal rim diameter.
- 5.8 **Section width (S)** means the linear distance between the outsides and the sidewalls of an inflated tyre excluding elevations due to labelling (markings), decorations or protective bands or ribs.

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5.9 **Tread pattern depth** means the distance, measured nearest to the centerline of the tyre, from the base of the tread design to the top of the tread.

6.0 **DEFINITIONS RELATED TO SERVICE**

6.1 **Free rolling tyre (FRT)** means a tyre restricted to use on trailers and semi-trailers.

6.2 **Load index (load capacity index or LI)** means a numerical code associated with the maximum load a tyre can carry at the speed indicated by its speed symbol under service conditions by the tyre manufacturer.

6.3 **Maximum load rating** means the load rating at the maximum permissible inflation pressure for that tyre.

6.4 **Maximum permissible inflation pressure** means the maximum cold inflation pressure to which a tyre may be inflated.

6.5 **Ply rating (PR)** means an index of tyre strength used to identify a given tyre with its recommended maximum permitted load under service conditions specified by the tyre manufacturer.

NOTE: It does not necessarily represent the actual number of plies in a tyre.

6.6 **Service condition characteristics** means a service designation consisting mainly of the load index and speed symbol.

6.7 **Special-use tyre** means a tyre for mixed use, both on

and off the road and/or at restricted speed.

6.8 **Special category** means a category assigned to a tyre which denotes the maximum speed for which use of the tyre is rated.

6.9 **Speed symbol** means a symbol indicating the speed at which the tyre can carry a load corresponding to its load index under service conditions specified by the tyre manufacturer.

7.0 **DEFINITIONS RELATED TO INJURY AND REPAIR**

7.1 **Bead separation** means a breakdown of bond between components in the bead area.

7.2 **Chunking** means the breaking away of pieces of tread.

7.3 **Cord separation** means cords parting away from adjacent rubber components.

7.4 **Crack** means any parting within the tread, sidewall, or innerliner of the tyre extending to the cord material.

7.5 **Injury** means a break of any shape caused by a penetrating object or severe scuff on impact.

7.6 **Inner lining separation** means the parting of the inner lining from the cord material in the carcass.

7.7 **Kinked** means a sharp permanent bend in the bead wires at one or more points around the circumference of the bead.

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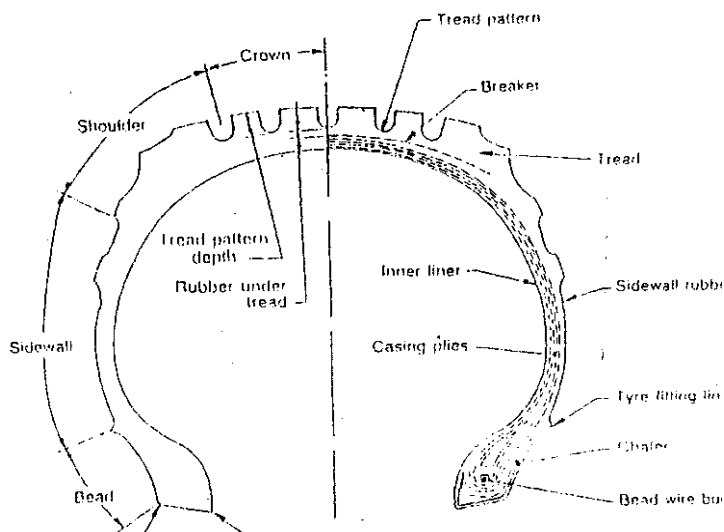
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- 7.8 **Nailhole** means a penetration caused by a sharp small object.
- 7.9 **Open splice** means any parting at any junction of tread, sidewall, or innerliner that extends to the cord material.
- 7.10 **Ply separation** means a parting of rubber compound between adjacent plies.
- 7.11 **Radial cracking** means cracking on the sidewall area, resulting from under-inflation or ageing of rubber.
- 7.12 **Reinforcement** means any material, usually rubber and fabric, vulcanized to the tyre to add strength to the cord body at an injury.
- 7.13 **Repair** means the-permanent reconditioning of portions of a tyre that have been injured by punctures, cuts, breaks, cracks, etc. that restore strength for additional safe service.
- 7.14 **Repair material** means the rubber compound used to fill injured areas in a tyre.
- 7.15 **Section repair** means repair made to the used ore when an injury has extended through the tread or sidewall. The damaged cord is removed and new cord is replaced in the form of a repair unit or patch.
- 7.16 **Sidewall separation** means the parting of the rubber compound from the cord material.
- 7.17 **Skiving** means the removal of damaged material by means of a bevelled cut.

- 7.18 **Tread separation** means the pulling away of the tread from the tyre carcass.
- 7.19 **Weather cracking** means a visual sidewall condition which appears as cracking of the rubber.

FIGURE 1
(Refer to 4.0)

TYPICAL SECTION OF DIAGONAL PLY TYRE



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FIGURE 2
(Refer to 4.0)
TYPICAL SECTION OF RADIAL-PLY TYRE

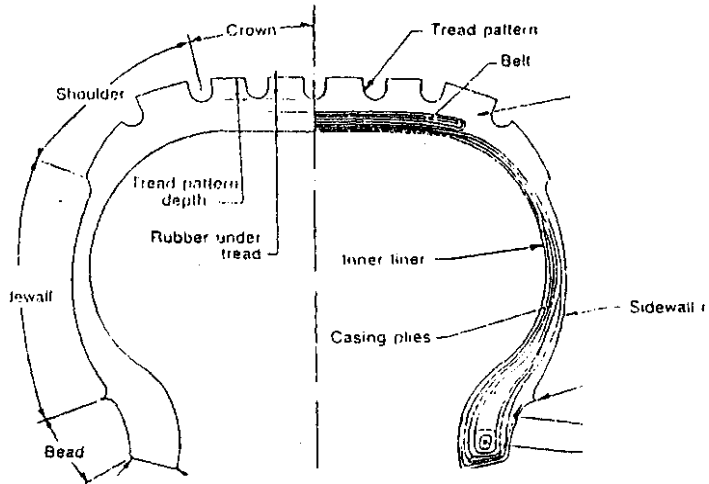


FIGURE 1
(Refer to 4.0)
TYPICAL SECTION OF DIAGONAL PLY TYRE

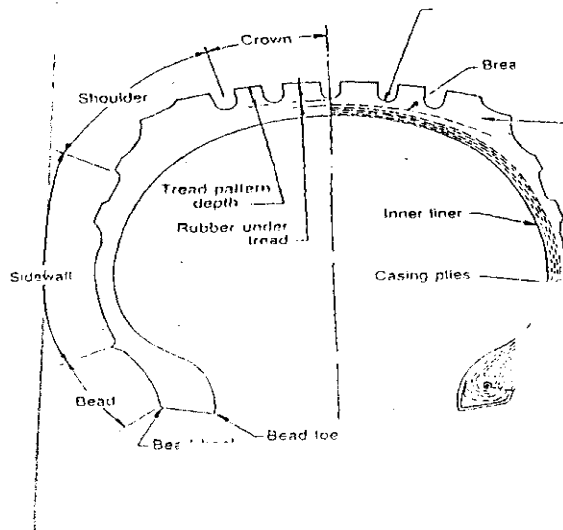
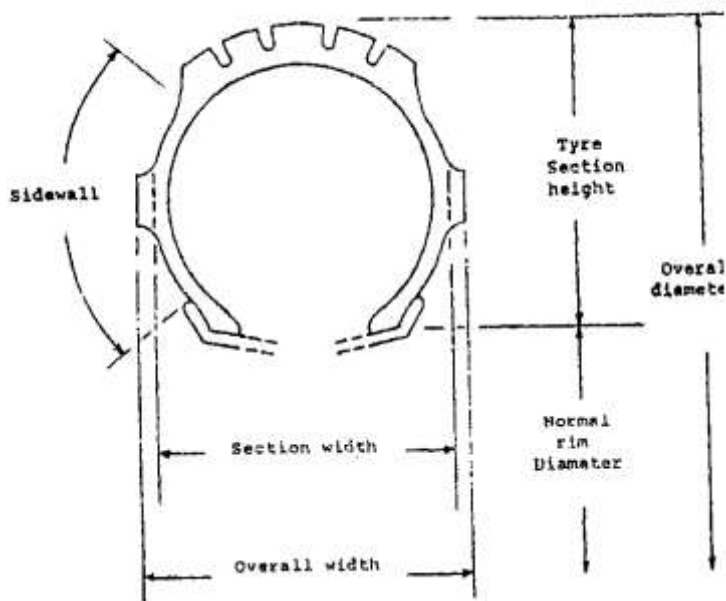


FIGURE 3
(Refer to 5.0)
TYPICAL TYRE SECTION
(Diagrammatic only)



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SIXTH SCHEDULE

**SPECIFICATION
FOR
PNEUMATIC PASSENGER
CAR TYRES**

1.0 SCOPE

- 1.1 This standard applies to new and used pneumatic passenger car tyres.
- 1.2 This standard does not apply to retreaded or regrooved tyres, or to used tyres (casings) to be used for the retreading or regrooving process.

2.0 DEFINITIONS

- 2.1 For the purpose of this Guyana Standard, the definitions according to GYS66: 1977 shall apply:-

3.0 TYRE DESIGNATION

3.1 DIMENSIONAL AND CONSTRUCTIONAL CHARACTERISTICS

- 3.1.1 The characteristics shall be indicated as follows:

Nominal Section Width	Nominal aspect ratio	Tyre construction code	Nominal rim diameter code
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Note: the order shall be maintained.

3.2 NOMINAL SECTION WIDTH

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3.2.1 The nominal section width of the tyre shall be indicated in millimetres, ending either in "0" or "5", so that in any one series of tyres with the same nominal aspect ratio, the values shall all end with "0" or all end with "5".

3.3 **NOMINAL ASPECT RATIO**

3.3.1 The nominal aspect ratio shall be expressed as a percentage and shall be a multiple of 5.

NOTE: When the Nominal Aspect Ratio is 82 for radial ply tyres; 95 and 88 for diagonal ply tyres, these numbers may be omitted.

3.4 **TYRE CONSTRUCTION CODE**

3.4.1 The tyre construction code shall be as follows:

B for bias-belted construction;

D for diagonal construction;

R for radial ply construction,

Note: The use of another code letter (for example, in the case of a new construction type) shall first be remitted to the Guyana National Bureau of Standards for acceptance and inclusion in this list.

3.5 **NOMINAL RIM DIAMETER CODE**

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3.5.1 For tyres mounted on existing rims, the code shall be as given in Table 1.

3.5.2 For tyres requiring new concept rims, for safety reasons especially concerning mounting the code number shall be equal to the nominal rim diameter, expressed in a whole number of millimetres.

3.6 SERVICE CONDITIONS CHARACTERISTICS

3.6.1 The service condition characteristics or service description shall be indicated as follows:

Load index

Speed symbol

3.6.1.1 **Load index** - The tyre load capacity corresponding to the service conditions specified by the tyre manufacturer shall be indicated by a load index taken from table 2. This indication is understood to be for a single mounting.

3.6.1.2 **Speed symbol** - The speed symbol shall be indicated by a letter taken from Table 3 corresponding to the speed category.

3.7 OTHER SERVICE CHARACTERISTICS

3.7.1 The word "TUBELESS" shall be used to characterise tyres that can be used without a tube.

3.7.2 The maximum permissible inflation pressure which shall be indicated in psi or kPa.

3.7.3 Specific indications, if required, may be added to indicate:

- (a) the type of vehicle for which the tyre is primarily designed, by using a symbol "P";

- (b) the temporary used of certain spare tyres using indications such as “temporary use” and/or symbol “T”;
- (c) the direction of mounting;
- (d) the type of tread pattern;
- (e) other characteristics.

NOTE: Where any one of these optional markings is used it shall be so positioned that confusion shall not result from its proximity to any other service condition marking.

4.0 **INSPECTION AND SELECTION OF USED TYRES**

4.1 **INSPECTION**

4.1.1 Used tyre inspection shall be made by a trained, certified inspector. Each used tyre shall be cleaned and inspected outside then inside in order to detect all evident damages or injuries. The inspection shall include placing the used tyre on a mechanical spreader under adequate lighting (3200 lux), and distortion of the natural contour sufficient for visual inspection.

4.1.2 Each inspected tyre shall be certified to indicate whether it is acceptable or not acceptable for use on motor vehicles.

NOTE 1: the qualifications of the Inspector of used tyres shall be submitted to the

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NOTE 2: the Guyana National Bureau of Standards recommends the use of electronic, ultrasonic or holographic casing inspection equipment which can aid in determining used tyre integrity.

4.2 SELECTION CRITERIA FOR USED TYRES

4.2.1 A used tyre shall not be acceptable for motor vehicle use unless it has a minimum tread depth of 4.0 mm and bears the following, permanently moulded on it at the time of original manufacture:

- (a) The DOT symbol or other markings indicating that the tyre was originally manufactured to comply with **FMVSS 109 – New pneumatic tyres** or other recognised international bodies or practices;
- (b) The size designation of the tyre ;
- (c) The load range or maximum permissible load;
- (d) Sufficient information to allow the tyre to be identified as bias, bias belted or radial ply.

4.2.2 A used tyre containing any of the following weaknesses or injuries shall not be accepted for motor vehicle use:

- (a) exposed cords due to tread wear or sidewall scuffing;

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- (b) radial or groove cracks extending to the cords;
- (c) tread separation;
- (d) weather cracking extending to cords;
- (e) broken, damaged, kinked or exposed bead wires;
- (f) any visual evidence of belt damage;
- (g) ply separation;
- (h) porous liners or defective or opened splices in liners extending to the cords;
- (j) loose cords on the inner ply;
- (k) damage to the inner or bead sealing areas on tyres identified as tubeless;
- (l) evidence of having been run under-inflated or overloaded;
- (m) casing break-up (flex break);
- (n) generally weakened condition due to age, moisture, or exposed to oil or other chemical attack;
- (p) injuries to the plies in the bead area;
- (q) sidewall separation; or

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- (r) nail hole or other injuries of sufficient sizes and numbers that cannot be repaired using accepted commercial practice.

5.0 REQUIREMENTS

5.1 GENERAL

Each manufacturer of tyres shall insure that a listing of the tyres, and the rims that shall be used with each tyre that he produces, is provided to the public.

The listing shall be contained in publications, current at the date of manufacture of the tyre or any later date, of at least one of the following organisations:

- (a) The Tire and Rim Association (USA);
- (b) The European Tyre and Rim Technical Organisation (Belgium);
- (c) Japan Automobile Tire Manufacturers' Association Incorporated (Japan);
- (d) Deutsche Industry Norm (Germany);
- (e) Scandinavian Tire and Rim Organisation (Scandinavia);
- (f) The Tyre and Rim Association of Australia (Australia); or
- (g) British Standards Institution (England).

Each rim listing shall include dimensional specifications and a diagram of the rim.

5.2 **PHYSICAL DIMENSIONS**

The actual section width and overall width of each tyre measured in accordance with 6.2, shall not exceed the section width and overall width specified in 5.1 by more than:

- (a) seven percent (7%), for tyres which a maximum permissible inflation pressure of 32, 36, or 40 psi; or
- (b) seven per cent (7%) or 0.4 inches whichever is the larger, for tyres with a maximum permissible inflation pressure of 60 psi, or 240, 280, 300, or 340 kPa.

5.3 **TUBELESS TYRE RESISTANCE TO BEAD UNSEATING**

When tested in accordance with 6.3, the applied force required to unseat the tyre bead at the point of contact shall be not less than;

- (a) 6675 N for tyres with a designated section width of less than 155 mm;
- (b) 8900 N for tyres with a designated section width of 155 mm or greater but less than 205 mm;
- (c) 11120 N for tyres with a designated section width of 205 mm or greater.

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5.4 TYRE STRENGTH

5.4.1 When tested in accordance with 6.4, each tyre shall meet the requirements for minimum breaking energy specified in Table 4.

5.5 TYRE ENDURANCE

5.5.1 When the tyre has been subjected to the laboratory endurance test specified in 6.5, using a test rim that undergoes no permanent deformation and allows no loss of air through the portion that comprises the tyre-rim pressure chamber:

- (a) There shall be no visual evidence of tread, sidewall, ply, cord, innerliner, or bead separation, chunking, broken cords, cracking or open splices; and
- (b) The tyre pressure at the end of the test shall not be less than the initial pressure specified in 6.5.1

5.6 HIGH SPEED PERFORMANCE

5.6.1 When the tyre has been subjected to the laboratory high speed performance test specified in 6.6, using a test rim that undergoes no permanent deformation and allows no loss of air through the portion that it comprises of the tyre-rim pressure chamber, the tyre shall meet all the requirements set forth in 5.5.1 (a) and (b).

6.0 TEST PROCEDURES

6.1 TEST RIMS

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6.1.1 Tyres shall be tested on test rims specified for its size designation as determined in 5.1.

6.2 **PHYSICAL DIMENSIONS**

6.2.1 The physical dimensions of tyres shall be determined under uniform ambient conditions as follows:

- (a) Mount the tyre on a test rim and inflate it to the applicable pressure specified in Table 5;
- (b) Condition it at ambient room temperature for at least 24 hours;
- (c) Readjust pressure to that specified in 6.2.1 (a);
- (d) Caliper the section width and overall width at 6 points approximately equally spaced around the tyre circumference;
- (e) Record the average of the measurements as the section width and overall width respectively; and
- (f) Determine tyre outer diameter by measuring the maximum circumference of the tyre and dividing this dimension by 3.1416.

6.3 **TUBELESS TYRE BEAD UNSEATING RESISTANCE**

6.3.1 **Preparation of Tyre Wheel Assembly** - Wash the tyre, dry it at the beads, and mount it without lubrication or adhesives on a clean painted test rim.

6.3.1.1 Inflate it to the applicable pressure specified in Table 5

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at ambient room temperature.

6.3.1.2 Mount the wheel and tyre in the fixture as shown in Figure 1 and force the standard block in figure 2 or figure 2A against the tyre sidewall as required by the geometry of the fixture. However, in testing a tyre that has an inflation pressure of 60 psi, only use the bead unseating block in figure 2A.

6.3.2 **Test Procedure** – Apply a load through the block to the outer sidewall of the tyre at the distance specified in figure 1 for applicable wheel size at a rate of 50 + 10 mm per minute, with the load arm substantially parallel to the tyre and rim assembly at the time of engagement.

6.3.2.1 Increase the load until the bead unseats or the applicable value specified in 5.3.1 is reached.

6.3.2.2 Repeat the test at not less than four places which shall be equally spaced around the tyre circumference.

6.4 TYRE STRENGTH

6.4.1 **Preparation of Tyre** – Mount tyre on a test rim and inflate it to the applicable pressure specified in Table 5.

6.4.1.1 Condition it at room temperature for at least 3 hours.

6.4.1.2 Re-adjust its pressure to that specified in 6.4.1.

6.4.2 **Test Procedures** - Force a 19 + 2 mm diameter cylindrical steel plunger with a hemispherical end perpendicularly into the tread rib as near to the centre-line as possible, avoiding penetration into the tread groove, at the rate of 50 + 10 mm per minute.

6.4.2.1 Record the force and penetration at five points equally spaced around the circumference of the tyre. If the tyre fails to break before the plunger is stopped by reaching the rim, record the force and penetration as the rim is reached and use these values in 6.4.2.2. In the latter case, if the calculated value is less than the minimum breaking energy, the minimum breaking energy is deemed to have been achieved at that point.

6.4.2.2 Compute the breaking energy value of W (in N.m) for each test point by means of the following formula:

$$W = \frac{F \times P}{2} \quad (1)$$

where

F is the force (N); and
 P is the penetration (m).

6.4.2.3 Determine the breaking energy value for the tyre by computing the average of the five values obtained in accordance with 6.4.2.2.

6.5 **TYRE ENDURANCE**

6.5.1 **Preparation of Tyre** – Mount a new tyre on a test rim and inflate it to the applicable pressure specified in Table 5.

6.5.1.1 Condition the tyre assembly to $38 \pm 3^\circ\text{C}$ for not less than 3 hours.

6.5.1.2 Re-adjust tyre pressure to that specified in 6.5.1 immediately before testing.

6.5.2 **Test Procedure** – Mount the tyre and wheel assembly on a test axle and press it against a flat-faced steel test

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wheel 1708 mm in diameter and at least as wide as the section width of the tyre to be tested or an improved equivalent test wheel, with the applicable test load being a percentage of the load capacity as indicated in Table 6 for the tyre's size designation, type and maximum permissible inflation pressure.

- 6.5.2.1 During the test, the ambient temperature should be $38 \pm 3^{\circ}\text{C}$.
- 6.5.2.2 Conduct the test at 80 kilometres per hour test wheel speed in accordance with the schedule in Table 6 without pressure adjustment or other interruptions.
- 6.5.2.3 Immediately after running the tyre the required time, measure its inflation pressure. Allow the tyre to cool for one hour, then deflate the tyre, remove it from the test rim and inspect it for conditions specified in 5.5.1(a).

6.6 HIGH SPEED PERFORMANCE

- 6.6.1 After preparing the tyre in accordance with 6.5.1, mount the tyre and wheel assembly in accordance with 6.5.2.1 and press it against the test wheel with the load of 88 per cent of the tyre's maximum load rating or load index as marked on the tyre sidewall.
- 6.6.2 Break in the tyre by running it for 2 hours at 80 km per hour.
- 6.6.3 Allow it to cool to $38 \pm 3^{\circ}\text{C}$ and readjust the inflation pressure to the applicable pressure specified in Table 5.
- 6.6.4 Without further readjusting the inflation pressure, continue test without interruption at test wheel

speeds of 120 km per hour for 30 minutes, 130 km per hour for 30 minutes, and 140 km per hour for 30 minutes.

- 6.6.5 Immediately after running the tyre the required time, measure its inflation pressure. Allow the tyre to cool for one hour. Then deflate the tyre, remove it from the test rim, and inspect it for the conditions specified in 5.5.1 (a).

7.0 **SAMPLING AND TESTING TO DETERMINE COMPLIANCE**

7.1 **GENERAL**

7.1.1 Each tyre shall conform to each of the following:

- (a) It shall meet the requirements specified in 5.0 for its tyre size designation, type and maximum inflation pressure;
- (b) Its maximum permissible inflation pressure shall be either 240 kPa, 280 kPa, 300 kPa, 340 kPa, 32 psi, 36 psi, 40 psi and 60 psi.
- (c) It shall incorporate a tread wear indicator that will provide a visual indication when the tyre has worn to a tread depth of 1.6 mm; and
- (d) It shall be designed to fit each rim specified for its size, designation and type.

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7.2 TEST CERTIFICATE

7.2.1 When requested by the purchaser (for information on purchasing requirements see Appendix A), the manufacturer or supplier shall supply a certificate satisfactory to the Guyana National Bureau of Standards showing results of tests carried out to determine compliance of the new or used tyres with this specification.

7.2.2 **Sample Size** – For the purpose of issuing a Test Certificate, the size of the sample for testing shall be representative of the lot under consideration.

7.2.3 **Sample for Testing** – Each test sample shall consist of the following:

(a) One tyre for physical dimensions measurements, resistance to bead unseating test and strength test. The tests are to be performed in this sequence;

(b) One tyre for tyre endurance test; and

(c) A third tyre for high speed performance test.

7.2.4 **Absence of Testing Facilities** – Where the manufacturer or supplier does not have the facilities for testing, he shall be responsible for arranging that tests be done elsewhere.

7.3 COMPLIANCE

7.3.1 Where the samples taken in accordance with 7.2.2 and tests in accordance with 5.0, and satisfy all other requirements of this standard, the lot shall be deemed to comply with this Guyana Standard.

7.4 **NONCONFORMING TYRES**

7.4.1 No new or used pneumatic tyres primarily intended for use on passenger cars, but which do not conform to all the requirements of this standard, shall be sold, offered for sale, or imported into Guyana for any purpose whatsoever.

NOTE: This standard makes no provision for statistical sampling quality control or contractual arrangements. Where compliance with this standard is to be assessed on the basis of statistical sampling and inspection, the sampling plan shall be determined by a responsible authority.

8.0 **STORAGE**

8.1 New and used tyres shall be stored in accordance with **GYS 68: 1997 Code of Practice for the Storage of Tyres, Inner Tubes and Flaps**.

9.0 **LABELLING**

9.1 **LABELLING REQUIREMENTS**

9.1.2 Each tyre shall have permanently moulded into or onto both sidewalls, in letters and numerals not less than 2.0 mm high, the relevant labelling information in accordance with **GYS 9: 1994 Guyana Standard Specification for Labelling of Commodities, Part 1 - General Principles** and in particular the following information:

(a) the designation of the dimensional and

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- constructional characteristics (tyre construction code);
- (b) the designation of the load characteristics (load index);
- (c) the designation of the speed characteristics (speed symbol);
- (d) the designation of other service characteristics;
- (e) maximum permissible inflation pressure;
- (f) the words "tubeless" or "tube type" as applicable;
- (g) the word "radial" if the tyre is a radial ply tyre;
- (h) the generic name of each cord material used in the plies (both sidewall and tread area) of the tyre; and
- (i) actual number of plies in the sidewall, and the actual number of plies in the tread area if different.

EXAMPLE:

165/80 R 15	Marking of dimensional and constructional characteristics.
87 H	Marking of load index and speed symbol (distinct location but the vicinity of proceeding marking).

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Maximum inflation Location left to the discretion of
the tyre manufacturer.
pressure 240 kPa

TUBELESS Location left to the discretion
of the manufacturer.

Polyester Location left to the discretion
of the manufacturer.

2 ply Location left to the discretion
of the manufacturer.

9.1.2.1 The characteristics of a tyre with the above markings shall be as follows:

165: nominal section width equal to 165 mm;

80: nominal aspect ratio equal to 80;

R: radial ply construction;

15: nominal rim diameter code, corresponding
to 381 mm;

87: load index corresponding to a tyre load of
545 kg;

H: speed symbol corresponding to a speed
category of 210 km/h.

Maximum inflation pressure 240 kPa: the maximum
permissible inflation pressure.

TUBELESS: tyre to be used without a tube;

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Polyester: type of cord material used;

2 ply: the number of plies in the sidewall
and tread area.

9.1.3 The information shall be positioned in an area between a maximum section width and bead of the type. However, in no case shall the information be positioned on the tyre so that it is obstructed by the flange of any rim designated for use with that tyre in this standard.

9.1.4 The location of the marking of the load and speed characteristics shall be distinct but in the vicinity of the marking of dimensional and constructional characteristics.

9.1.5 No location is specified for the markings related to other service characteristics (see 3.7.1, 3.7.2 and 3.7.3).

**APPENDIX A
(Refer to 7.2.1)**

INFORMATION TO BE SUPPLIED BY PURCHASER

A.1.1 The following information shall be given by the purchaser by the manufacturer at the time of order or enquiry:

- (a) the number of this Guyana Standard;
- (b) the designation of the dimensional and constructional characteristics;
- (c) the designation of the load and speed characteristics;

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- (d) the designation of the other service characteristics;
- (e) the quantity;
- (f) whether or not the purchaser requires a Test Certificate; and
- (g) whether or not the purchaser requires to inspect the product at the manufacturer's works.

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TABLE 1
(Refer to 3.5.1)

RIM CODE DIAMETER

Code	Nominal Rim Diameter (mm)
10	254
12	305
13	330
14	356
15	381
16	406
17	432
18	457
19	483

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TABLE 2 (Refer to 3.6.1.1)
 CORRELATION BETWEEN LOAD INDEX (LI) AND
 TYRE LOAD-CARRYING CAPACITY (TLCC)

LI	TLCC (kg)	LI	TLCC (kg)
50	190	90	600
51	195	91	615
52	200	92	630
53	206	93	650
54	212	94	670
55	218	95	690
56	224	96	710
57	230	97	730
58	236	98	750
59	243	99	775
60	250	100	800
61	257	101	825
62	265	102	850
63	272	103	875
64	280	104	900
65	290	105	925
66	300	106	950
67	307	107	975
68	316	108	1000
69	325	109	1030
70	335	110	1060
71	345	111	1020
72	355	112	1120
73	365	113	1150
74	375	114	1180
75	385	115	1215
76	387	116	1250
77	400	117	1285
78	412	118	1320
79	425	119	1360
	437	120	1400
80	450		
81	462		
82	475		

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LI	TLCC (kg)	LI	
83	487		
84	500		
85	515		
86	530		
87	545		
88	560		
89	580		

TABLE 3
(Refer to 3.6.1.2)

CORRELATION BETWEEN SPEED SYMBOL AND SPEED
CATEGORY

SPEED SYMBOL	SPEED CATEGORY (KM/H)
J	100
K	110
L	120
M	130
N	140
P	150
Q	160
R	170
S	180
T	190
U	200
H	210
V	240
Z	greater than 240

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TABLE 4A
MINIMUM BREAKING ENERGY VALUES FOR RADIAL PLY TYRES

Designation on Section Width (mm)	Minimum Breaking Energy Values (N.m)					
	Maximum Permissible Inflation Pressure of 240 kPa	Maximum Permissible Inflation Pressure of 240 kPa	Maximum Permissible Inflation Pressure of 300 kPa	Maximum Permissible Inflation Pressure of 32 psi	Maximum Permissible Inflation Pressure of 36 psi	Maximum Permissible Inflation Pressure of 40 psi.
Below 160	220	441	220	220	330	441
160 and above	294	588	294	294	441	588
Note: Values under psi and values under kPa units are two internationally accepted parallel systems.						

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TABLE 4B
(Refer to 5.4.1)

MINIMUM BREAKING ENERGY VALUES FOR BIAS PLY TYRES

Designated Section Width (mm)	Cord Material	MINIMUM BREAKING ENERGY VALUES (N.m)						
		Maximum Permissible Inflation Pressure of 240 KPa	Maximum Permissible Inflation Pressure of 280 KPa	Maximum Permissible Inflation Pressure of 300 KPa	Maximum Permissible Inflation Pressure of 340 KPa	Maximum Permissible Inflation Pressure of 32 psi	Maximum Permissible Inflation Pressure of 40 psi	
Below 155	Rayon	113	282	113	282	113	212	282
	Nylon or Polyester	220	441	220	441	220	330	441
155 and above	Rayon	186	373	186	373	186	291	373
	Nylon or Polyester	294	588	294	588	294	441	588

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NOTE: Values under psi units and values under kPa units are two internationally accepted parallel systems.

TABLE 4C
(Refers to 5.4.1)
MINIMUM BREAKING ENERGY VALUES FOR TYRES
WITH 60 PSI MAXIMUM PERMISSIBLE INFLATION
PRESSURE.

Maximum Load Rating	Cord Material	Minimum Breaking Energy Values (N.m)
Below 400 kg (880 lbs)	Rayon	186
	Nylon or Polyester	294
400 kg (880 lbs) and above	Rayon	113
	Nylon or Polyester	220

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TABLE 5

(Refer to 6.2.1., 6.3.1.1, 6.4.1, 6.5.1, 6.6.3)

TEST INFLATION PRESSURES

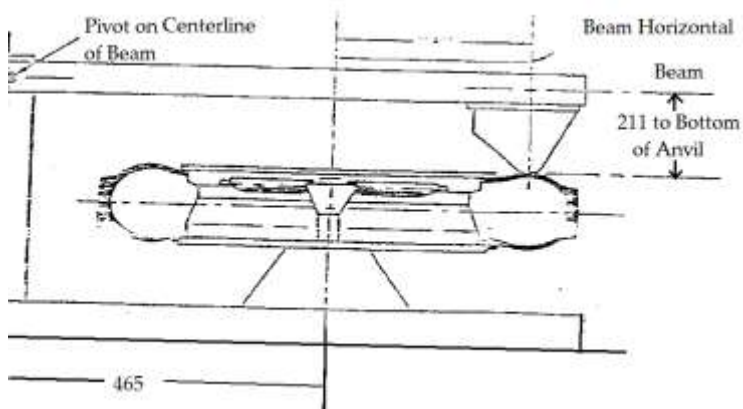
Maximum Permissible Inflation Pressure	240 KPa	280 KPa	300 KPa	340 KPa	32 psi	36 psi	40 psi	60 psi
Pressure to be used in tests for physical dimensions, bead unseating, tyre strength and tyre endurance.	180 KPa	220 KPa	180 KPa	220 KPa	24 psi	28 psi	32 psi	52 psi
Pressure to be used in test for high speed performance	220 KPa	260 KPa	220 KPa	260 KPa	30 psi	34 psi	38 psi	58 psi

TABLE 6
(Refers to 6.5.2 and 6.5.2.2)

APPLIED LOAD AND RESPECTIVE TIME

Durations (hours)	Percentage of the Tyre Load Capacity (%)
4	85
6	90
24	100

FIGURE 1
(Refers to 6.3.1.2 and 6.3.2)
BEAD UNSEATING FIXTURE
(Dimensions in mm)



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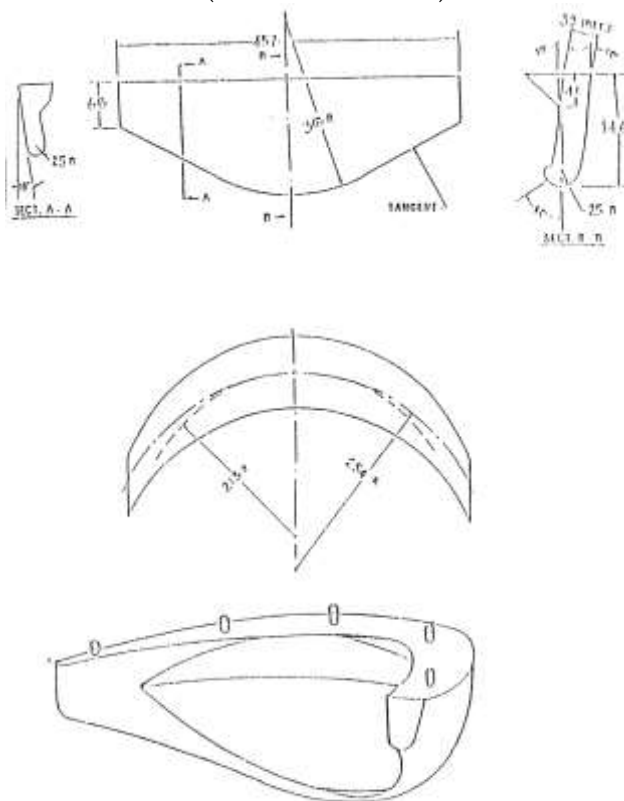
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WHEEL SIZE	DIMENSIONS "A" (in mm) FOR TYRES WITH MAXIMUM INFLATION PRESSURE	
	OTHER TEAN 60lb/in'	60lb/in'
17in	305	-
16in	292	251
15in	279	239
14in	267	226
13in	254	213
12in	241	-
11in	229	-
10in	216	-
320mm	216	-
340mm	229	-
345mm	235	-
365mm	248	-
370mm	254	-
390mm	279	-
415mm	292	-

FIGURE 2
(Refer TO 6.3.1.2)

DIAGRAM OF BEAD UNSEATING BLOCK
(Dimensions in mm)

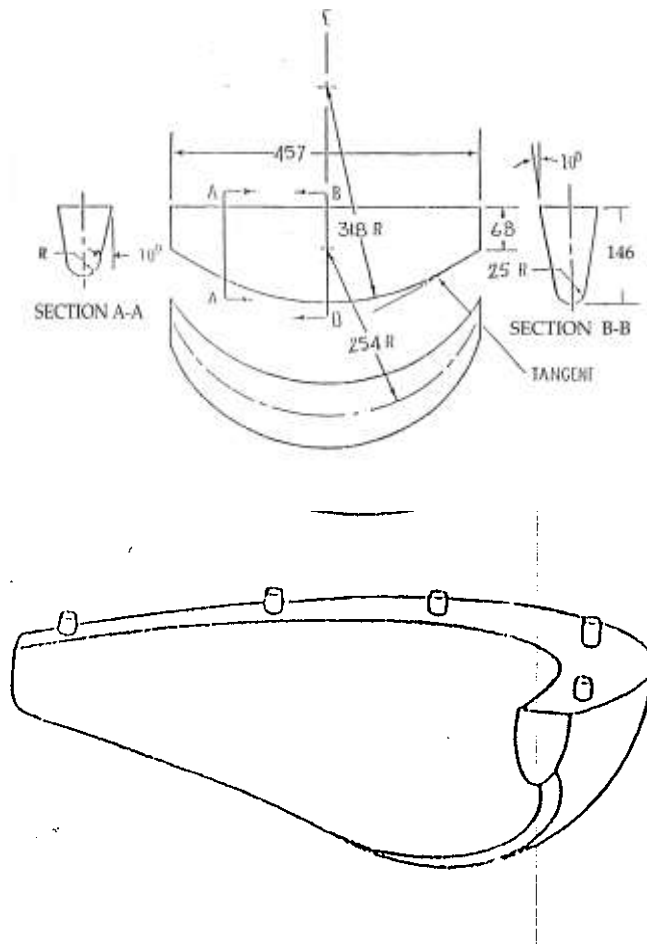


MATERIAL: Cast Aluminium 355
T-6 Condition
Finish – 50 Micro Inch

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FIGURE 2A
(Refer TO 6.3.1.2)
DIAGRAM OF BEAD UNSEATING BLOCK
(Dimensions in mm)



MATERIAL: Cast 355
T-6 Condition
Finish – 50 Micro inch

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SEVENTH SCHEDULE GYS 68:1997

CODE OF PRACTICE FOR THE STORAGE OF TYRES, INNER TUBES AND FLAP

1.0 **SCOPE**

1.1 This code of practice gives recommendations for storage of tyres, inner tubes and flaps.

2.0 **STORAGE**

2.1 It is essential that storage should be inside a building to protect tyres, tubes and flaps from the potentially harmful influences such as the action of ozone, light, heat or humidity.

3.0 **STORAGE CONDITIONS**

3.1 **Humidity**

3.1.1 The store room should be dry and moderately ventilated. Moist conditions should be avoided as tyres can also absorb moisture causing degradation of the structure with a risk of subsequent failure in service.

3.2 **Light**

3.2.1 Tyre products should not be stored in direct sunlight and should be protected from artificial light having a high ultraviolet content. Lightning with filament type lamps should be used in preference to fluorescent tubes and daylight should be reduced by tinting glass

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windows with red or orange coating or screen to absorb ultraviolet light.

3.3 TEMPERATURE

- 3.3.1 Tyres should not be stored at temperature higher than 35°C, the preferred temperature range being 25°C to 30°C.

NOTE: It is essential that tyres are not stored in direct contact with hot surfaces, e.g. radiators, hot pipes, etc.

3.4 OZONE

- 3.4.1 As ozone is particularly deleterious to rubber, storage rooms should not contain any equipment that is capable of generating ozone, such as memory vapour lamps and high-voltage electrical equipment giving rise to electric sparks or silent electric discharges. Combustion gases and organic vapour should be excluded from storage rooms, as they may give rise to ozone via photochemical processes.

3.6 CHEMICALS AND LUBRICANTS

- 3.6.1 Solvents such as petrol and paraffin, oil, grease, acid and disinfectants are harmful to rubber and should be stored separately. Storage areas should be free from all forms of dirt and grease which, even if not damaging, will mar the appearance of the tyres.

3.7 STOCK ROTATION

- 3.7.1 A first-in, first-out policy should be adopted to minimize the storage period and hence any deterioration of products before use. Tyres that have

been in storage for more than 6 years from the date of manufacture or retreading should not be put in service without reference to the tyre manufacturer or retreader, as appropriate.

3.8.1 DEFORMATION

3.8.1 Tyres should not be stored in a manner which could cause permanent deformation (see 3.9 and 3.10).

3.9 VERTICAL STORAGE

3.9.1 It is recommended that vertical storage of tyres in pallets should be used, particularly for long-term storage (see figure 1). Tyres stored by this method should be turned through at least 10° at intervals of not more than 6 months.

3.10 HORIZONTAL STORAGE

3.10.1 Horizontal storage (see figure 2) should be avoided where possible. When used, however, the stacking order should be rotated at least every 2 months, with the maximum number of tyres in the stack being six. Heavy lug tyres, e.g. agricultural tractor tyres, stored horizontally should be positioned with the tread lugs coinciding to avoid sidewall deformation.

4.0 INNER TUBES AND FLAPS

4.1 Tubes which are packed in cartons or bags should be left in these to provide some protection against contamination, ozone and light. If tubes are loose they should be stacked on flat unslotted shelves or pallets so that the valves are not deformed and do not damage neighbouring tubes.

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4.1.1 Flaps should be stored on flat, unslotted shelves or pallets.

4.1.2 Tubes and flaps should not be hung as this can cause stretching.

FIGURE 1
(Refer to 3.9.1)
VERTICAL STORAGE

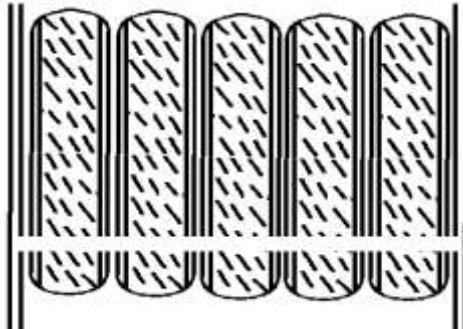
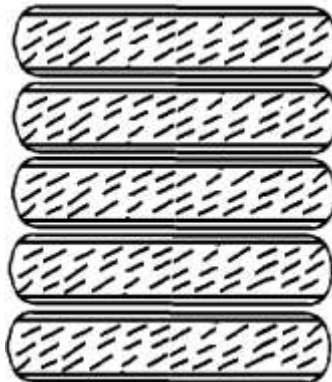


FIGURE 2
(Refer to 3.10.1)
HORIZONTAL STORAGE



EIGHTH SCHEDULE GYS 9-7:1998

GUYANA STANDARD
Specification
For
Labelling of commodities

Part 7: Labelling of household electrical appliances

1.0 SCOPE

This standard sets out the general labelling requirements for household electrical appliances and their detachable heating element(s) (if any) offered for sale in Guyana.

Any Guyana Standard for a particular household electrical appliance which shall contain labelling requirements applicable to that product, shall supersede the labelling requirements of this standard.

This standard is intended to be read in conjunction with GY 9-1: 1994 Guyana Standard Specification for labelling of commodities – Part 1: General principles.

2.0 DEFINITIONS:

For the purpose of this standard the following definitions shall apply (where the terms voltage and current are used they imply the r.m.s values, otherwise specified):

- 2.1 **appliance, fixed:**** An appliance which is fastened or otherwise secured at a specified location for example, water heaters.

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- 2.2 **appliance portable:** Either an appliance which is moved while in operation or an appliance which can easily be moved from one place to another while connected to supply, for example, refrigerators, washing machines, electrical ovens, pedestal fan.
- 2.3 **appliance stationary:** Either a fixed appliance or an appliance which cannot be easily moved from one place to another, for example, water pumps, extractor fans.
- 2.4 **cord detachable:** A flexible supply cord connected to the appliance with an appliance coupler.
- 2.5 **cord non-detachable:** A flexible supply cord permanently fixed to the appliance.
- 2.6 **cord non-detachable non-rewirable:** A flexible supply cord normally expected to last the life of the appliance.
- 2.7 **cord non-detachable rewirable:** A flexible supply cord where the method of attachment to the appliance is design to permit easy attachment.
- 2.8 **coupler:** Device consisting of a connector and a plug.
- 2.9 **current rated:** The current assigned to the appliance by the maker.
- 2.10 **frequency range, rated:** The frequency range assigned to the appliance by the maker expressed by its lower and upper limit.
- 2.11 **heating element, detachable (or part):** A heating element which can be removed without the aid of a tool, for example, coffee heaters.

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- 2.12 **frequency rated:** The frequency assigned to the appliance by the maker.
- 2.13 **heating element non-detachable (or part):** A heating element (or part) which can only be removed with the aid of a tool.
- 2.14 **household electrical appliance:** Any device intended to utilise power from electricity supply main at 100 volts (unless such device is intended solely to connect the supply main to an electric illuminating lamp), and intended for domestic use.
- 2.15 **input (watts or kilowatts), rated:** This input wattage under normal load or under adequate heat discharge and at normal operating temperature, assigned to the appliance by the maker.
- 2.16 **plug:** A device provided with contact pins, which is intended to be attached to a flexible cable and which can be engaged with a socket outlet or with a connector.
- 2.17 **rated operating time:** The operating time assigned to the appliance by the maker.
- 2.18 **voltage range, rated:** The voltage assigned to the appliance by the maker, expressed by its lower and upper limits.
- 2.19 **voltage, rated:** The voltage (for three-phase supply the line voltage) assigned to the appliance by the maker.

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3.0 **LABELLING REQUIREMENTS:**

3.1 Household electrical appliances shall be permanently marked with:

- (a) Rated voltage(s) or rated voltage(s) range, in volts, optional for appliances with detachable heating elements only;
- (b) Abbreviations or symbol for nature supply, if applicable;
- (c) Rated frequency or rated frequency range, in hertz, unless the appliance is frequency independent;
- (d) Rated input in watts or kilowatts (if greater than 25W); or rated current in amperes;
- (e) Sufficient information enabling the manufacturer or responsible supplier to be traced. In the case of imports the responsible supplier means the importer. When the information given applies to the importer, this shall be marked on the article or its immediate packaging;
- (f) Country of manufacture;
- (g) Maker's name, trade mark or identification number;
- (h) Maker's model or type reference;
- (i) Rated operating time, or rated operating time and rated resting time, in hours, minutes or seconds if applicable;

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

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- 3.2 Detachable heating elements shall be marked with:
- (a) rated voltage(s) or rated voltage range(s) in volts;
 - (b) rated input in watts or kilowatts (if greater than 25W);
 - (c) maker's name or trade mark;
 - (d) maker's model or type reference;
 - (e) symbol for degree of protection against electric shock and moisture, if applicable.
- 3.3 If the appliance can be adjusted to suit different rated voltage or different rated inputs, the voltage or input to which the appliance is adjusted shall be easily and clearly discernible.
- 3.4 For appliances or detachable heating elements marked with more than one rated voltage or rated voltage range, the rated input for each of these voltages or ranges shall be marked, if greater than 25W.
- 3.5 When symbols are used, they shall be represented as follows:
- | | | |
|----|-----|-------------|
| V | for | volts |
| A | " | amperes |
| HZ | " | hertz |
| W | " | watts |
| kw | " | kilowatts |
| MF | " | microfarads |
| L | " | litres |

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Kg	“	kilograms
N/cm ²	“	newton per square centimetre
h	“	hours
min	“	minutes
s	“	seconds
~	“	alternating current
3~	“	three phase alternating current
3N~	“	three phase alternating current with neutral
	“	direct current
	“	earthing terminals
N	“	neutral

Note: The symbols for protection against moisture and electrical shock shall be provided by in relevant standard, under consideration.

- 3.6 Switches shall be marked or placed so as to indicate clearly which component they control.

Indications used for this purpose shall, wherever possible, be comprehensible without a knowledge of languages, national standards, etc.

- 3.7 The different positions of regulating devices, and the different positions of switches on stationary appliances shall be indicated by figures, letters or other visual means. The “Off” position shall not be indicated by words only.

If figures are used for indicating the different positions, the “Off” position shall be indicated by figure 0 and the position for a greater output, input, speed, cooling effect, etc., shall be indicated by a higher figure.

The figure 0 shall not be used for any other indication.

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- 3.8 Thermostats, regulating devices and the like, intended to be adjusted during installation or in normal use, shall be provided with an indication for the direction of adjustment to increase or decrease the value of the characteristic being adjusted.

An indication of + and – is deemed to be sufficient.

- 3.9 Where special precautions are necessary in the installation, use or care of the appliance, these shall if concerned with safety, be permanently marked on the appliance. If the precautions are not concerned with safety they shall be stated either by marking on the appliance or on an instruction sheet supplied with the appliance at the time of sale.
- 3.10 If an appliance is supplied without an electrical connecting plug, but with supply conductors, then they shall be identified by a fixed tag or plastic label showing the colour coding used.
- 3.11 Instruction sheets shall be written in the **official language(s)** of the **country in which the appliance is to be sold**. If the appliance is electric motor driven, a single supply cable to the appliance should be used and marked accordingly.
- 3.12 Marking shall be easily legible and except for non-detachable heating elements, durable. Marking specified in 3.1 to 3.4 shall be on a main part of the appliance or detachable heating elements.

The marking of other appliances shall be clearly discernible from the outside, if necessary after removal of a cover, for portable appliances, the

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removal of this cover shall not require the use of a tool. For stationary appliances, the marking shall only be beneath a cover if it is near to the terminals for external conductors. Marking on detachable heating elements shall be clearly discernible when the element is removed from the appliance.

Markings on, and indications for switches, thermostats and control devices, shall be placed in the vicinity of these components; they shall not be placed on removable parts if these parts can be replaced in such a way that the marking is misleading.

- 3.13 If more than one supply cord is used for a stationary appliance, the marking shall include a warning that all supplies must be made dead before removing the terminal cover.

O. 5 of 2001

**GUYANA NATIONAL BUREAU OF STANDARDS
(COMPULSORY STANDARD SPECIFICATIONS)
ORDER**

made under section 20

Citation.

1. This Order may be cited as the Guyana National Bureau of Standards (Compulsory Standard Specifications) Order 2001.

Standard specifications declared compulsory.

2. The Standard Specifications specified in the First, Second, Third, Fourth and Fifth Schedules are hereby declared compulsory.

FIRST SCHEDULE GYS 95:1997

**Specification
For
Labelling of commodities
Part 5: Labelling of furniture**

1 Scope

This standard describes the labelling requirements for furniture, when offered for sale in Guyana, whether locally manufactured or imported.

2 Reference

The following standard contains provisions, which, through reference in this text, constitute provisions of this National Standard.

GYS9 - 1 : 1994 Specification for labelling of commodities-Part 1 : General principles. Guyana Standard.

3. Labelling

3.1 General requirements

3.1.1 All labels shall be prominently and conspicuously displayed. All required information shall be in legible, unambiguous English.

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3.1.2 All labels shall be securely affixed to the furniture by whatever method the manufacturer chooses.

3.2 Detailed requirements

3.2.1 The label on each item of furniture shall include the following:

- (a) name and street address of the manufacturer and/or supplier;
- (b) type of material e.g. wood, hubaballi, simarupa, etc.; metal, veneered particle board, plastic;
- (c) type of finish e.g. lacquer, varnish, paint;
- (d) precautionary note for general usage and care e.g. **Do not scrape, scratch or score; clean with soap and water only; protect from cosmetics and alcohol; not heat resistant.**

Note: For upholstered furniture, the type of fabric, the frame and the type of material used for the filling.

4 Conformity

4.1 To conform to this standard, labelling shall comply with

- (a) GYS9- 1: 1994
- (b) Clause 2 above.

5 Approval of labels

New labels may be submitted to the Guyana National Bureau of Standards, at the design stage, for approval.

SECOND SCHEDULE

GYS 9-3: 1997

**Specification
for
Labelling of commodities
Part 3: Labelling of cigarettes**

1 Scope

This standard sets out the requirements for the information to be included on the labels of packages of cigarettes, and the method of display of such information. It also specifies the wording of the health warning to be placed on these labels.

This standard applies to cigarettes, which are offered for retail sale in Guyana, whether they are imported into or manufactured in Guyana.

2 Reference

The following standard contains provisions, which, through reference in this text, constitute provisions of this National Standard.

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GYS 9-1 : 1994 Specification for labelling of commodities- Part 1 : General principles. Guyana Standard.

GYS 9-2 : 1994 Specification for labelling of commodities - Part 2: Prepackaged goods. Guyana Standard.

3 Definitions

For the purpose of this standard, the following definitions shall apply:

- 3.1 **cigarette:** Any roll of tobacco wrapped in paper or in any substance not containing tobacco, which, because of its appearance, the type of tobacco used in the filler or its packaging and labelling is likely to be offered to or purchased by consumers as a cigarette, and which may include other ingredients or additives, tips or filters.
- 3.2 **common name:** The name by which the product is commonly described in Guyana, or any name for the product that is commonly used in trade, art, craft, science, industry or occupation, in countries using the English Language (whether or not the name is in English), and includes any name used in a standard declared by the Guyana National Bureau of Standards for those goods.
- 3.3 **label:** Includes legend, work or mark, symbol, imprint, stamp, brand, ticket, or tag applied to, placed on, accompanying, sold with and which refers to any goods and package containing goods.
- 3.4 **labelling:** Includes the label and any matter written, printed, stencilled, marked or embossed, relating to

and accompanying the goods.

3.5 manufacturer The person who manufactures, processes, prepares or pre-packages any cigarettes for retail sale, or the person who sells any cigarettes under a trade name controlled by him. It includes the importer of the goods.

3.6 nicotine average: The average assigned to a brand of cigarettes by a recognised authority.

3.7 package: Any receptacle, container, wrapper, box, or confining band or card in or on which goods are sold, but does not include package liners, shipping containers or any other wrapping or box not customarily displayed to the consumer or purchaser at the point of retail sale.

3.8 tar group: The tar group assigned to a brand of cigarettes in accordance with **Appendix A**.

3.9 warning area: The area in which the warning notice is to be placed.

4 General requirements

4.1 No label declaration, method of presentation or publicity concerning cigarettes shall be made in such a manner as is likely to mislead the purchaser and/or consumer as to the true nature of the composition of the product as a whole.

4.2 Each package of cigarettes shall be labelled with the following information:

- (a) the common name of the goods,

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together with any brand name or registered trade name;

- (b) an accurate declaration of the net contents of the package;
- (c) the name and identifiable business address of the manufacturer, packer, importer or distributor, and the country of origin;
- (d) a warning statement as required by sub-clause 5.1.1;
- (e) the nicotine average per packet expressed in milligrams;
- (f) the tar content per packet, expressed in milligrams;
- (g) the tar group designation.

Note: In addition, all other point or sale materials shall carry the appropriate warning statement.

5 Detailed requirements

5.1 Health warning

5.1.1 All packages of cigarettes produced for retail sale in Guyana shall carry a health warning as specified in Appendix B.

5.1.2 No statement relating to smoking and health other than the statement required by 5.1.1 of this standard shall be required on any package of cigarettes.

5.1.3 The warning shall be located in a conspicuous place on every package of cigarettes.

5.1.4 Such conspicuous place shall be the display panel or any side of the package provided that the side panel used does not bear any written or graphic matter other than the background colour of the side panel or reasonable extensions of graphic matter from other panels.

Note **Where the warning appears on the principal display panel, it shall be free from other copy, except that the content number and the brand name of manufacturer may appear, once it is clearly separated from the warning as specified in sub-clause 5.1.8.**

5.1.5 The warning may be printed either on the package or on a label securely attached to it.

5.1.6 It shall appear in a frame or warning area, in conspicuous and legible type in contrast by typography, layout or colour, with other printed matter on the package.

5.1.7 The warning area shall be separated from other materials on the label by at least twice the height of the point size of the type in the printed warning statement.

5.1.8 The text of the warning shall be printed in the English Language. It shall be printed in Universe 57 Medium Condensed, 9 point, upper and lower case type or in an equivalent type style which ensures that the warning statement is conspicuous and legible at the point of sale.

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5.2 Tar group

- 5.2.1** The tar group information shall be printed on a label securely attached to the package or on the package itself.
- 5.2.2** The tar group designation shall be as set out in **Appendix A**.
- 5.2.3** The group designation, and the word 'group' if used as part of it, may be printed on a package surface other than that carrying the health warning.
- 5.2.4** The tar group designation shall be printed in lettering of at least similar size and clarity to that specified in sub-clause 5.1.8.
- 5.2.5** It may be accompanied by any text, which the company considers necessary for legal purposes. Such text shall be printed in a type that will not distract from the group designation.
- 5.2.6** The tar group shall not be incorporated in a brand name for example 'Embassy Low Tar' is not allowed.

6 Responsibility for labelling

- 6.1** It shall be the responsibility of any person who sells or distributes any cigarettes to see that they are properly labelled as required by this standard.

7 Labelling of imported packages

- 7.1.1** Where cigarettes are imported in retail packages, the wording and presentation of the health warning shall

be:

- (a) as specified in 5.1.1 to 5.1.8;
- (b) in the English Language and alphabet, using a form of words and presentation required or approved by an appropriate authority in the country of origin or where the cigarettes were packaged, which has been accepted by the Bureau as equivalent to the warnings specified in 5.1.1 to 5.1.8.

Note: Drafts or designs or labels may be submitted to the Guyana National Bureau of Standards to determine whether they comply with the requirements of this Standard. The final label shall be approved by the Bureau prior to printing.

Appendix A

Tar group designation

- A. 1 Brands of cigarettes may be given a Tar Group Designation in accordance with the mg of tar per cigarette found by tests performed by a recognised authority.
- A. 1.1 The Tar Group Designation is related to the mg of tar per cigarette as follows:

Range of tar per cigarette (mg)	Tar designation	group
------------------------------------	--------------------	-------

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Less than 10	Low tar
10 but less than 18	Middle tar
18 and above	High tar

Nicotine average

- A.2** Brands of cigarettes shall be given a nicotine average rating in accordance with the nicotine average for the brand found by tests performed by a recognised authority.
- A.2.1** Test for mg of tar per cigarette and for nicotine average are to be performed by laboratories recognised by the Bureau on samples of the brands that are sold in Guyana. All such tests are for the account of the manufacturer.

Appendix B

Health warning statement

- B.1** **Warning: SMOKING IS DANGEROUS TO HEALTH**
- B.2** The above warning statement shall be preceded by the words **The Ministry of Health advises that.**
- B.2.1** The letters shall be at least half the size of the letters in the warning Statements as specified in sub-clause 5.1.8.

THIRD SCHEDULE

GYS 9-6: 1997

**Specification
for
Labelling of commodities
Part 6: Labelling of animal feed**

1 **Scope**

This Standard sets out requirements for the labelling of animal feeds.

2 **References**

The following standard contains provisions which through reference in this text, constitute provisions of this National Standard.

GYS 9-1 : 1994 Specification for labelling of commodities - Part 1 : General principles. Guyana Standard.

GYS 9-2 : 1994 Specification for labelling of commodities - Part 2 : Prepackaged goods. Guyana Standard.

3 **Definitions**

For the purpose of this Standards the following definitions shall apply:

- 3.1 **additive:** Any organic or inorganic material added to feed for the purpose of preserving the quality of the feed.

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- 3.2 **animal feed:** All feeds (supplement or complete), whether mixed, cubed, pelleted or otherwise processed, and intended to be sold for the purpose of feeding animals.
- 3.3 **brand:** Any distinctive mark or trade name, apart from the name of the feed required by this standard, applied by the manufacturer, registrant, or vendor to a feed to distinguish it from another feed.
- 3.4 **complete feed:** A feed compounded from more than one ingredients that, when used for the kind of animal and as directed on the label, will provide all of the nutritional requirements necessary for the maintenance of animal health or for promoting production.
- 3.5 **lot:** The quantity of one type of animal feed produced under similar conditions in a day.
- 3.6 **lot number:** Any combination of letters, figures or both by which a feed can be traced in manufacture or distribution.
- 3.7 **medical feed:** A feed containing a medicating ingredient.
- 3.8 **medicating ingredient:** Any drug, hormone, antibiotic or other ingredient added to feed for altering performance, production or for the prevention of or the treatment of disease.
- 3.9 **name of feed:** Any legend, other than the brand name, which indicates the class of animal, the age of the animal or the type of production for which the feed is intended.

3.10 supplement: A mixture of one or more ingredients which supply nutrients or nutrients and medicating ingredients in sufficient concentrations that, when in accordance with the directions for use, will produce a complete or balanced feed.

4.0 Labelling

4.1 Sealed packages or containers of animal feed shall be legibly labelled in English by means of letters not less than (1.59 mm) in height with the following information.

4.1.1 Name of Manufacturer

4.1.2 The Brand name or Trademark.

4.1.3 Type of Feed

4.1.4 Lot Number and Date of Manufacture.

4.1.5 The Net weight of the Prepackaged Feed.

4.1.6 The Form of the feed, eg., mashed, crumbled, pelleted or any other form.

4.1.7 The term "supplement feed" when the feed is not complete food.

4.1.8 The species of animal for which the feed is intended.

4.1.9 The purpose for which the feed is to be used.

4.1.10 Directions for using the feed, if appropriate.

4.1.11 The common or usual name of each ingredient of the

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feed in the descending order of proportion unless the actual quantity by weight or percentage is indicated.

4.1.12 The name and amount of additive.

4.1.13 The maximum moisture content expressed as a percentage by weight of the feed.

4.1.14 In the case of medicated feed:-

- (a) the name and quantity of the active medicating ingredient;
- (b) the precautions to be observed in using the feed;
- (c) the withdrawal time if applicable

4.1.15 The label of the feed for monogastric animals shall indicate whether the feed is Type A or Type B:

Type A

A feed which is designated Type A is formulated on the basis of preformed protein. In this case the minimum crude protein values shall apply.

Type B

A feed which is designated Type B is formulated on the basis of preformed protein supplemented with amino acids and with a corresponding decrease in crude protein levels. In this case the minimum crude protein values shall not apply, but essential amino acids shall less than those stipulated for each ration.

4.1.16 The guaranteed proximate analysis (dry matter or

moisture basis) listing:

- (a) the minimum percentage crude protein (% Nitrogen x 6.25);
- (b) the minimum percentage crude fat;
- (c) the minimum percentage crude fibre;
- (d) the percentage total ash.

4.2 When a feed is sold in bulk the information required in Sub-Clause **4.1** shall be shown on the shipping bill or an invoice delivered with the shipment to the purchaser.

FOURTH SCHEDULE

GYS 9-8: 1998

Specification
For
Labelling of commodities
Part 8: Labelling of cosmetics

1 **Scope**

This standard describes requirements for the information to be included on labels of cosmetics, and the method of display of such information.

It shall be read in conjunction with GYS 9-1: 1994 Specification for Labelling of Commodities - Part 8: Labelling of cosmetics.

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This standard does not apply to the following:

(a) Drugs

Cosmetics which are intended to treat or prevent disease or affect the structure or function of the human body are considered drugs as well as cosmetics and are liable to be regulated as both.

2 Reference

The following standard contains provisions which, through reference in this text, constitute provisions of this National Standard.

GYS 9-1 : 1994 Specification for labelling of commodities Part 1: General principles.

3 Definitions

For the purpose of this standard the following definitions shall apply:

- 3.1 **aerosol:** Refers to a self-contained sprayable product in which the propellant force is supplied by a liquified gas. It includes space, residual, surface coating, foam and other type of products, but does not include gas-pressurized products such as whipped cream.
- 3.2 **approved:** Means approved by the Guyana National Bureau of Standards.
- 3.3 **common name of goods:** The name of which goods are commonly described in Guyana, or any name for those goods commonly used in trade, art, craft, science, industry or occupation in countries using the English language (whether or not the name is in

English), and includes any name used in a standard declared by the Guyana National Bureau of Standards for those goods.

- 3.4 container:** A receptacle, package, wrapper or conforming band in which a product is offered for sale, but does not include package liners or shipping containers or any outer wrapping of box that is not customarily displayed to the consumer.
- 3.5 cosmetic products:** Any substance or preparation intended to be applied to any part of the external surfaces of the human body (i.e. epidermis, hair system, nails, lips and external genital organs) or to the teeth or buccal mucosa wholly or mainly for the purpose of cleansing, perfuming and protecting them or keeping them in good condition, or changing their appearance or combating body odour or perspiration, except where such cleaning, perfuming, protecting, keeping, changing or combating is wholly for the purpose of treating or preventing disease.
- 3.6 drug:** Includes any substance or mixture of substances manufactured, sold or represented for use in:-
- (a) the diagnosis, treatment, mitigation or prevention of a disease, disorder, abnormal physical state, or the symptoms thereof;
 - (b) restoring, correcting or modifying organic functions.
- 3.7 incidental ingredients:** May mean:
- (a) substances that are present in the

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cosmetic by reason of having been incorporated into the cosmetic as an ingredient of another cosmetic ingredient;

(b) processing aids which are added during the processing of a cosmetic.

- 3.8 ingredient:** Any single chemical entity or mixture used as a component in the manufacturing of a cosmetic product.
- 3.9 label:** Any label, mark, tag, sign, device, imprint, stamp, brand, ticket or tag accompanying the cosmetic or package containing the cosmetic.
- 3.10 labelling:** Includes the label and any matter, written, printed, stencilled, marked or embossed, relating to end accompanying the goods.
- 3.11 multi-component package:** A package containing two or more individual packages of different cosmetics, with the individual packages being intended only to be sold as part of the multi-unit package.
- 3.12 multi-unit package:** A package containing two or more individual packages of the same cosmetic in the same quantity, with the individual packages being intended to be sold as part of the multi-unit package, but capable of being individually sold in full compliance with all the requirements of this standard.
- 3.13 ornamental container:** A container that because of its shape, texture or any design appearing on its surfaces, appears to be a decorative ornament, and is sold as a decorative ornament in addition to being sold as the container of a product.

- 3.14 person:** Refers to both singular and plural and shall include any individual partnership, company, corporation, association and society.
- 3.15 prepackaged product:** Any product that is packaged in a container in such a manner that it is ordinarily sold to or used or purchased by a consumer without being repackaged.
- 3.16 tamper proof packaging:** Additional packaging which is intended to improve the packaging security of and help the safety of the product.
- 3.17 childproof:** Additional features on the opening and closing devices to prevent access of children.

4 General requirements

- 4.1** Each package of prepackaged cosmetic shall be labelled with the following information:
- 4.1.1** The common name or statement of the identity of the cosmetic, together with any brand name or registered trade name.
- 4.1.2** An accurate declaration of the net contents of the package subject to such tolerances as may be allowed in appropriate units of measure.
- 4.1.3** The name and identifiable business address of the processor, manufacturer, packer, importer or distributor and the country of origin.
- 4.1.4** A list of ingredients.

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- 4.1.5 Adequate directions or instructions for the safe use of the product.
- 4.1.6 A caution statement where appropriate to ensure proper and safe use of the product.
- 4.1.7 A warning statement appropriate to the prevention of any health hazard that may be associated with the product.
- 4.1.8 A code to indicate the date of packing, process batch, name of processor and place at which the cosmetic was processed.
- 4.1.9 The expiry date in readily legible print.

4.2 **Presentation of labelling information**

All information required to be carried on a label shall be clear, prominently displayed in English and readily legible to the consumer under normal conditions of purchase and use.

The required information shall be written in such colour or colours as to afford a distinct contrast to the background on which it is printed.

The required information shall not be obscured by design or other written, printed or graphic matter.

4.3 **Information on packages of containers.**

- 4.3.1 Any package into which containers of different cosmetics (multi-component) are placed by or on behalf of the manufacturer, processor, importer or distributor of such cosmetics, shall bear on the outside of the package:

- (a) the labelling information to be given on the labels of the containers as set out in this standard;
- (b) the number of individual units in the package;
- (c) the net contents of each individual unit;
- (d) a code which clarifies the labelling information as it is given, in respect of each of the individual unit containers.

Any package containing more than one packaged unit of the same cosmetic (multi-unit) shall bear on the outside of the package, a declaration of:

- (a) the number of individual units in the package;
- (b) the quantity of each individual unit;
- (c) the total net quantity of the contents of the multi-unit package;

In addition, each individual cosmetic in package form shall be labelled in accordance with the requirements of this standard.

- 4.3.2** Where the units of such multi-unit or multi-component packages of cosmetic products are held in a container or wrapping which allows the components or units and their label statements to be clearly discernible under normal conditions of

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purchase, the required marking on such container or wrapping is waived provided that the visible labelling satisfies the requirements of this standard.

4.4 Responsibility for labelling

It is the responsibility of any person who imports, manufactures, repackages or distributes any cosmetic, to see that it is properly labelled as required by this standard.

4.5 Principal display panel

The information required by 4.1.1 and 4.1.2 shall be placed on the principal display panel of the container.

The principal display panel shall be large enough to accommodate the required mandatory information referred to in 5.1, clearly and conspicuously.

- (a) in the case of a box, the side or surface commonly displayed;
- (b) in the case of a cylindrical container, the forty per cent (40%) of the total surface area most likely to be displayed;
- (c) in the case of a container that is a bag with sides of equal dimensions, one (1) of those sides;
- (d) in the case of a container that is a bag with sides of more than one (1) side, the side with the largest area;
- (e) in the case of a container that has a wrapper or confining band that is

much narrower than the goods contained therein, the total area of one side of a ticket or tag attached to the container or to the goods;

- (f) in the case of an ornamental package, the bottom of the package;
- (g) in the case of any other shape of container, forty per cent (40%) of the total surface area of the container, or where the container presents an obvious principal display panel, the area shall consist of that entire surface.

5 Detailed requirements

5.1 Common name or statement of identity

The statement shall be in terms of:

- (a) the common or usual name of the cosmetic;
- (b) an appropriate description name or one understood by the buyer to identify such cosmetic;
- (c) an appropriate illustration or vignette representing the intended cosmetic use.

In all instances it shall be set out in such a manner as to refer to at least one of the cosmetic product categories set out in **Appendix A**, so that a clear

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indication of the product's intended use is given or implied.

5.2 Declaration of net contents

5.2.1 The net contents of the container shall be stated in the following manner:

- (a) liquid cosmetics by volume;
- (b) solid, semi-solid, viscous or a mixture of solid and liquid cosmetics by weight;
- (c) by number;
- (d) in accordance with firmly established general consumer usage and trade custom; or
- (e) with approval in writing from the Guyana National Bureau of Standards, in any other manner as to give accurate information with respect to the quantity of cosmetic in the package.

5.2.2 Net quantity of aerosols shall be declared by net weight (propellant plus ingredients) except aerosol shave creams, hair sprays and deodorants, which shall be declared by volume (propellant and ingredient).

5.3.3 The statement of the place of business shall include the street address, city and country of origin.

The place of business may be the principal place of business

instead of the actual place where the cosmetic is manufactured, packed or distributed.

5.4 Ingredient labelling

5.4.1 Cosmetics which are intended for retail sale to consumers for their personal care shall include ingredient declarations on their labels.

5.4.1.1 The declaration, shall be so printed and positioned as to render it likely to be read and understood by consumers under normal conditions of purchase.

5.4.2 The name of each ingredient shall be declared in descending order of predominance by weight.

5.4.2.1 Ingredients present at one percent (1%) or less may be declared without regard for predominance.

5.4.2.2 Incidental ingredients that are present in a cosmetic at an insignificant level, and which have no technical or functional effect in the cosmetic, shall not be declared.

5.4.2.3 Ingredients shall be identified by the common or usual name, the chemical name or by the trade name as established or adopted by Guyana National Bureau of Standards regulations.

5.4.2.4 Those ingredients accepted by the Guyana National Bureau of Standards as being exempt from public disclosure may be staged as 'and other ingredients'.

5.4.3 Cosmetics which are also drugs shall first identify the drug ingredients as 'active ingredient(s)' before listing the cosmetic ingredients.

5.4.3.1 A declaration of ingredients may include an

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ingredient not in the product if the ingredient is identified by the phrase “may contain” and:

- (a) it is a colour additive added to some batches of the product for purposes of colour matching;
- (b) the same declaration of ingredients is also used for other products similar in composition and intended for the same use, including products which may be assortments of products similar in composition and intended for the same use;
- (c) such products are 'shaded' products, that is, those falling within the product categories identified under (3), (7) and (8) (v) of **Appendix A**.
- (d) all products sharing the common declaration of ingredients are sold by the labeller under a common trade name or brand designation, not common to all products, appears on the labelling of any of them;
- (e) the ingredient is a colour additive.

5.4.5 The ingredient declaration listing may alternatively appear in letters of not less than 1.6 mm in height, in labelling accompanying the product, on a display unit or chart, on padded sheets or leaflets, where approval in writing is given by the Guyana National Bureau of Standards.

5.4.6 Where a shortage of cosmetic ingredient necessitates a

formulation change, packages bearing labels declaring ingredients of the old formulation, may be used if the revised ingredient declaration appears:

- (a) on a firmly affixed tag, tape, card, sticker or similar overlabelling, attached to the package, and bearing the conspicuous words 'new ingredient list', in letters not less than 1.6 mm in height;
- (b) on labelling inside an unsealed package with the package bearing the conspicuous words on a sticker or similar overlabelling 'new ingredients list inside' in letters not less than 1.6 mm in height.

5.5 Instructions for use

Where any risk to the safety or health of a consumer or user may result if the goods are not properly stored, handled, transported or used, appropriate instructions for use shall be provided.

Such instructions shall be either on the label of the package, on the container of the cosmetic, or on a card or paper accompanying the goods or package.

5.6 Warning statements

- 5.6.1 A warning statement shall be part of the label of any cosmetic product, whenever it is necessary and appropriate to prevent a health hazard that may be

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associated with the use of the product.

- 5.6.2 Such statement shall be in bold. type in strong contrast to the rest of the packages, so as to be prominent and highly conspicuous under customary conditions of purchase and use.
- 5.6.3 Where the safety of a finished product has not been adequately substantiated before marketing, the product shall bear the following statement on its principal display panel:

WARNING: The safety of this product has not been determined.

- 5.6.4 The label of a cosmetic packaged in a self-pressurized container, and intended to be expelled from the package under pressure shall bear the following warning statement:

**WARNING Avoid spraying in eyes.
 Contents under pressure. Do
 not puncture or incinerate. Do
 not store at temperatures
 above 49°C. Keep out of reach
 of children.**

- 5.6.4.1 Where such product is intended for use by children, the phrase "Keep out of reach of children" may be substituted for "Use under adult supervision".
- 5.6.4.2 Where the propellant consists in whole or in part of a halo-carbon or a hydrocarbon, it shall bear the following warning:

**WARNING Use only as directed.
 Intentional misuse by
 deliberately concentrating and**

inhaling the contents can be harmful or fatal.

5.6.4.3 Where the propellant consists in whole or in part of a fully halogenated chlorofluorocarbon it shall bear the following warning:

WARNING Contains a fluorocarbon that may harm the public health and environment by reducing ozone in the upper atmosphere.

5.6.4.4 Where the product is packaged in a glass container, the word 'break' may be substituted for the word 'puncture' in the warning required by **5.6.4**.

5.6.4.5 The words 'avoid spraying in eyes', may be deleted from the warning required by **5.6.4**, in the case of a product not expelled as a spray.

5.6.4.6 The warning required by **5.6.4.2** is not required for the following products:

- (a) products expelled in the form of a foam or cream which contains less than 10% propellant in the container;
- (b) products in a container with a physical barrier that prevents escape of the propellant at the time of use;
- (c) products of a net quantity of less than 60g, that are designed to release a measured amount of product with each value actuation;

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- (d) products of a net quantity of less than 15g.

5.6.5 Feminine deodorant spray

The label of a feminine deodorant aerosol spray whose labelling suggests that the product is for use in the female genital area, or for use all over the body, shall bear the following statement:

CAUTION: For external use only. To spray hold container at least 20.3 cm from skin. Do not apply to broken irritated or itching skin. Persistent, usual odour or discharge may indicate conditions for which a physician should be consulted. Discontinue use immediately if rash, irritation or discomfort develops.

5.6.6 Bubble bath products

The label of any product which is intended to be added to a bath for the purpose of producing foam that contains a surface active agent serving as a detergent or foaming ingredient, shall bear adequate directions for safe use, and the following caution:

CAUTION: Use only as directed. Excessive use or prolonged exposure may cause irritation.

5.6.7 Hair dye products

Hair dye products containing coal tar colour shall be required to have adequate directions for preliminary

patch testing by consumers for skin sensitivity, and a cautionary statement as follows:

CAUTION: **This product contains ingredients which may cause skin irritation on certain individuals, and a preliminary test according to accompanying directions should first be made. This product may not be used for dyeing the eyelashes or eyebrows. To do so may cause blindness.**

5.6.8 Depilatories and hair straighteners

These shall have appropriate explicit warnings and directions for safe use.

5.6.9 Hair shampoos, rinses and conditioners

These shall have appropriate warnings and directions for safe use.

5.6.10 Products Containing oestrogenic hormones, placental extracts or vitamins

The label declarations for these shall not imply prevention or treatment of disease or effect on the structure, or any function of the human body.

Oestrogen content shall be declared and users shall be directed to limit the amount of production applied daily so that no more than the recommended limit of oestrogen be used per month.

Vitamin ingredients shall be listed by their respective

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chemical names.

5.6.11 Nail builders, hardeners, enamels

These shall be accompanied by adequate directions for safe use, and shall have a warning about the consequences of misuse and potential for causing allergic reaction in sensitive users.

5.6.12 Cosmetic detergents and soaps

These shall not claim to cure, treat or prevent disease or affect the structure of any function of the human body.

Cosmetic soaps and detergents shall be regulated as drugs if they are intended to cure, treat or prevent disease, or to affect the structure of any function of the human body.

5.6.13 Cosmetic suntan products

The labels shall state the maximum safe sun exposure period under conditions of prescribed use.

They shall bear adequate directions for safe use.

Their labels shall also bear warning statements as necessary or appropriate to prevent a health hazard.

Note Need for appropriate warning applies especially to suntan products not containing a sun screen ingredient and to those providing only marginal sunburn protection (those with sun protection factor (SPF) values of less than 4).

Suntan products whose label statements bear direct or indirect statements that the product screens out ultraviolet sunlight, prevents or treats sunburn, helps prevent wrinkles, or prevents premature aging of the skin shall be regulated as drugs.

5.7 Size and spacing of letters

The information to be set out in labels shall be in letters of not less than 1.6 mm in height.

The height of the letters in the declaration of net contents of the container shall be not less than the minimum size outlined in **Table 1**.

TABLE 1
MINIMUM TYPE HEIGHT

Area of principal display surface	Minimum type heights
(a) Not more than 32 cm ²	1.6 mm
(b) More than 32cm ² but not more than 258 cm ²	3.2 mm
(c) More than 258 cm ² but not more than 645 cm ²	6.4 mm
(d) More than 645 cm but not more than 25.8 dm ²	9.5 mm
(e) More than 25.8 dm ²	12.7 mm

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5.8 Language to be used on labels

All statements required by 4.1 shall be printed or written in the English Language.

All statements required by 4.1 shall be printed or written in the English alphabet with or without accent signs.

All numbers relating to the net contents stated on the label shall be given in arabic numerals or words.

5.9 Tamper resistant retail packages

Where cosmetic products are packed in tamper-resistant retail packages, they shall be required to bear a statement that is permanently placed so that consumers are alerted to the specific tamper resistant features of the package.

The label statement with respect to the above shall be placed so as to be unaffected if the tamper resistant feature is missed or breached.

Any identifying characteristics of the tamper resistant feature shall be referred to in the label statement.

5.10 Prevention of deception

The label on a package of cosmetic may contain other information, design, symbol or pictorial matter, provided that no word, illustration, symbol or other matter is used:

- (a) to give an erroneous impression as to the net contents of the package;
- (b) to give an erroneous impression as to

any ingredient or component of the cosmetic or that the cosmetic contains an ingredient or component that is not in fact contained in it;

- (c) to refer to the nature, origin, type, quality, performance, function or method of manufacture or production of the cosmetic that is likely to give an erroneous impression as to the matter described or depicted;
- (d) to give an erroneous impression as to the country of origin of the cosmetic;
- (e) to give an erroneous impression as to the price or unit price of the cosmetic.

6 Exemptions

Cosmetics not customarily distributed for retail sale, such as those intended for use by professionals at their establishments, are exempt from the ingredient labelling requirement of Section 5.4, provided that they are not also sold to consumers for their consumption at home.

The inside containers in a multi-unit or multi-component retail cosmetic package shall not bear a declaration of ingredients when the labelling of the multi-unit package meets all the requirements of Section 4.3.1 and the inside containers are not intended to be separated from the retail package for retail sale.

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The following cosmetics are exempt from the requirements of 5.6.4:

- (a) foam or cream products -containing less than 10% propellant;
- (b) products in a container with a physical barrier that prevents escape of the propellant at the time of use;
- (c) products of a net quantity of less than 60g and equipped with a metering value;
- (d) products with a net quantity of contents less than 15g.

7 Conflict

In the event of conflict between this specification and a supplementary specification referring to particular cosmetic or class of cosmetic, the latter shall prevail.

8 Permit to use containers and labels which do not satisfy these requirements

8.1 The Bureau may, at the request of any manufacturer, processor, importer or distributor of cosmetic, grant him a permit in writing to:

- (a) ship or sell cosmetic in unlabelled containers where such shipment for sale is intended for manufacturing purposes;
- (b) use, in relation to any of such

cosmetic which is intended for export only, labels which do not comply with the requirements of this specification if such labels comply with any law or regulations of the country to which the goods is intended to be exported;

- (c) use, in relation to such cosmetic, labels which do not satisfy the requirements of this specification in such respect as shall be specified in the permit and in a notice of the grant of the permit which shall be published in the Gazette as soon as practicable after the grant of the permit.

8.2 Subject to the provisions of **8.1**, a permit may be granted under this standard unconditionally or subject to such terms and conditions as may be specified in the permit.

Note: All new labels should be submitted to the Guyana National Bureau of Standards at the design stage for approval.

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Appendix –A

Categories of cosmetic products

The following categories of cosmetic products should indicate the products intended use.

Product Category	Example
1. Baby products	(i) Baby shampoos (ii) Baby lotions, oils, powders and creams (iii) Other baby products
2. Bath preparations	(i) Bath oils, tablets and salts (ii) Bubble baths (iii) Bath capsules (iv) Other bath preparations
3. Eye make-up preparations	(i) Eyebrow pencil (ii) Eyeliner (iii) Eye shadow (iv) Eye lotion (v) Eye make-up remover (vi) Mascara (vii) Other eye make-up products
4. Fragrant preparations	(i) Colognes and toilet waters (ii) Perfumes (iii) Powders (dusting and talcum) (excluding aftershave talc) (iv) Sachets (v) Other fragrant preparations

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Product Category	Example
5. Hair preparations (Non-colouring)	(i) Hair conditioners (ii) Hair sprays (aerosol fixatives) (iii) Hair straighteners (iv) Permanent waves (v) Rinses (not-colouring) (vi) Shampoos (non-colouring) (vii) Tonics, dressings and other hair grooming aids (viii) Wave sets (ix) Other hair preparations
6. Hair colouring preparations	(i) Hair dyes and colours (all types requiring caution statement and patch test) (ii) Hair tints (iii) Hair rinses (colouring) (iv) Hair shampoos (colouring) (v) Hair colour sprays (aerosol) (vi) Hair lighteners with colour (vii) Hair bleaches (viii) Other hair colouring preparations
7. Make-up preparations (not eye)	(i) Blushers (all types) (ii) Face powders (iii) Foundations (iv) Leg and body paints (v) Lipsticks (vi) Make-up bases (vii) Rouges (viii) Make-up fixatives (ix) Other make-up preparations
8. Manicuring preparations	(i) Basecoats and undercoats (ii) Cuticle softeners

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Product Category	Example
	(iii) Nail creams and lotions (iv) Nail polish and enamel (v) Nail polish and enamel removers (vi) Other manicuring preparations
9. Oral hygiene products	(i) Dentifrices (aerosol, liquid, pastes and powders) (ii) Mouthwashes and breath fresheners (liquids and sprays) (iii) Other oral hygiene products
10. Personal cleanliness	(i) Bath soaps and detergents (ii) Deodorants (underarm) (iii) Douches (iv) Feminine hygiene deodorants (v) Other personal cleanliness products
11. Shaving preparations	(i) After shave lotions (ii) Beard softeners (iii) Men's talcum (iv) Preshave lotion (all type) (v) Shaving cream (aerosol, brushless and lather) (vi) Shaving soap (cakes, stickers) (vii) Other shaving preparation products
12. Skin care and preparations (creams, lotions, powders and sprays)	(i) Cleaning (cold creams, cleaning lotions, liquids and pads) (ii) Depilatories (iii) Face, body and hand

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Product Category	Example
	(excluding shaving preparations) (iv) Foot powders and sprays (v) Hormone (vi) Moisturizing (vii) Night (viii) Paste masks (mud packs) (ix) Shampoos (dandruff) (x) Skin lighteners (xi) Skin fresheners (xii) Other skin care preparations
13. Suntan and sunscreen preparations	(i) Suntan gels, creams and liquids (ii) Indoor tanning preparations (iii) Other suntan preparations

FIFTH SCHEDULE

GYS 170: 1998

General requirements
for the
operation of a laboratory

1 Scope

This Guyana Standard specifies requirements for the operation of testing and/or calibration laboratories.

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2 General

- (a) The laboratory shall review the requirements of this standard and ensure that these are understood and met.
- (b) The laboratory shall develop a quality manual to address the requirements below.

3 Organisation and management

- 3.1 The laboratory or the organisation of which it is part shall be legally identifiable.

Note: If the laboratory is part of an organisation performing activities other than testing, the responsibility of all staff in the organisation that have an involvement or influence on the testing activities of the laboratory, shall be defined in order to identify potential conflicts of interest.

- 3.2 The laboratory shall have managerial personnel supported by technical personnel with the authority and resources needed to discharge their duties and to identify the occurrence of departures from the system or the procedures for permitting tests and to initiate actions to prevent or minimise such departures.
- 3.3 The laboratory shall have procedures to ensure the protection of its clients' confidential information.
- 3.4 The laboratory shall define with the aid of organisational charts, the organisation and management structure of the laboratory, its place in

any parent organisation, and the relations between management, technical operations and support services. The laboratory shall specify the responsibility, authority and interrelation of all personnel who manage, perform or verify work affecting the quality of the tests.

- 3.5 The laboratory shall provide adequate supervision of testing staff, including trainees by persons familiar with the test method and procedures.
- 3.6 The laboratory shall appoint a member of staff as quality manager (however named) who irrespective of other duties and responsibilities, shall have defined responsibility and authority for ensuring that the requirements of this standard are implemented and followed at all times.
- 3.7 The laboratory shall where possible, appoint deputies for key managerial personnel.
- 3.8 The senior management of the laboratory shall periodically conduct a review of the laboratory system and testing activities to ensure their continuing suitability and effectiveness and to introduce any necessary changes or improvements. The review shall take account of reports from managerial and supervisory personnel, the results of inter laboratory comparisons or proficiency tests, any changes in the volume and type of the work undertaken, feedback from clients, including complaints and other relevant factors.

The laboratory shall record findings from the management reviews and the actions that arise from them shall be recorded. The management shall ensure

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that those actions are discharged within an appropriate and agreed time scale.

Note: A typical period for conducting a management review is once every twelve (12) months.

4 Equipment

- 4.1** The laboratory shall be furnished with all items of sampling, measurement and test equipment required for correct performance of the tests (including sampling, preparation of test items, processing and analysis of test data). In those cases where the laboratory needs to use equipment outside its permanent control, it shall ensure that the requirements of this standard are met.
- 4.2** Calibration programmes shall be established for key quantities or values of the instruments where these properties have a significant effect on the results. Equipment shall be checked against the purchase order to establish that it meets the laboratory's specification requirements, complies with the relevant standard specifications, and is calibrated and/or verified before use.
- 4.3** All equipment having a significant effect on the uncertainty of the result and used for sampling, including that used for any measurements carried out in connection with the sampling, shall comply with the relevant standard specifications and/or procedures.
- 4.4** Equipment shall be operated by competent and authorized personnel. Up-to-date instructions on the use and maintenance of equipment (including any

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relevant manuals provided by the manufacturer of the equipment) shall be readily available for use by the laboratory personnel.

- 4.5 Each item of equipment shall, when appropriate, be uniquely labelled, marked or otherwise identified.
- 4.6 Records shall be maintained of each item of equipment significant to the tests and/or calibrations performed. The records shall include at least the following:
- (a) identity of the item of equipment;
 - (b) manufacturer's name, type identification, and serial number or other unique identification;
 - (c) date received and date placed in service;
 - (d) current location, where appropriate;
 - (e) condition when received (e.g. new, used, reconditioned);
 - (f) the manufacturer's instructions, if available, or reference to their location;
 - (g) dates, results and copies of reports and certificates of all calibrations and/or verifications, adjustments, acceptance criteria, and due date of next calibration and/or verification;

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- (h) maintenance carried out to date and that planned for the future
 - (j) damage, malfunction, modification or repair to the equipment.
- 4.7 Equipment shall be protected from deterioration and abuse and shall be maintained regularly to ensure proper functioning.
- 4.8 Maintenance procedures shall be established. Equipment that has either been subjected to overloading or mishandling, or gives suspect results, or has been shown by verification or use to be defective, shall be taken out of service, clearly labelled or marked and appropriately stored until it has been repaired and shown by calibration, verification or test to perform correctly. The laboratory shall examine the effect of this defect on previous tests.
- 4.9 Whenever practicable, all equipment under the control of the laboratory and requiring calibration or verification shall be labelled, coded or otherwise identified to indicate the status of calibration or verification and the date when recalibration or reverification is due.
- 4.10 When equipment goes outside the direct control of the laboratory for a period, the laboratory shall ensure that the function and calibration status of the equipment is checked and shown to be satisfactory before the equipment is used.
- 4.11 If checks are needed to maintain confidence in the calibration/verification status of the equipment these checks shall be carried out periodically according to a defined procedure.

- 4.12 Where calibrations give rise to a set of correction factors, the laboratory shall have procedures to ensure that copies are correctly updated.
- 4.13 The laboratory shall have procedures for safe handling, transport, storage and use of measuring equipment in order to prevent contamination or deterioration.
- 4.14 Test equipment, including both hardware and software, shall be safeguarded from adjustments which would invalidate the test and/or calibration results.

5 Personnel

- 5.1 The laboratory management shall ensure that all personnel who operate specific equipment perform tests/calibrations and make professional judgements, are competent.
- 5.2 When using staff undergoing training, appropriate supervision shall be arranged.
- 5.3 The laboratory shall be able to identify training needs and provide training of personnel.
- 5.4 Personnel performing specific tasks shall be qualified on the basis of appropriate education, training experience and/or skills as required.
- 5.5 The laboratory shall have job descriptions for managerial personnel and technical personnel involved in testing/calibrations.
- 5.6 The laboratory shall maintain records of the relevant

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competence, educational and professional qualifications, training and experience of all technical personnel.

6 Accommodation and environmental conditions

- 6.1** Laboratory facilities for testing/calibrations including, but not limited to energy sources, lighting and environmental conditions, shall be such as to facilitate correct performance of tests/calibration.

The environment in which the sampling and/or tests/calibrations are undertaken shall not invalidate the results or adversely affect the required quality of any measurement. Particular care shall be taken when sampling, tests/calibrations are undertaken at sites other than a permanent laboratory facility.

- 6.2** The laboratory shall have procedures for checking that the environment does not adversely affect the performance of the sampling and test/calibration equipment.

- 6.3** The laboratory shall monitor, control and record environmental conditions as required by relevant specifications or where they may influence the quality of the results. Due attention shall be paid, for example, to biological sterility, dust electromagnetic interference, radiation, humidity, electrical supply, temperature and sound and vibration levels, as appropriate to the technical activities concerned. Tests/calibrations shall be stopped when the environmental conditions might jeopardize the results of the tests and/or calibrations.

- 6.4** There shall be effective separation between

neighbouring areas in which there are incompatible activities. Measures shall be taken to prevent contamination.

6.5 Access to and use of areas affecting the quality of the tests/calibrations shall be controlled.

6.6 Measures shall be taken to ensure good housekeeping in the laboratory. Special procedures may be necessary.

7 Test methods

7.1 The laboratory shall use appropriate methods and procedures for all tests/calibration within its scope, including sampling, handling, transport, storage and preparation of items to be tested/calibrated and, where appropriate, an estimation of the measurement of uncertainty as well as statistical techniques for analysis of test/calibration data.

The laboratory shall have instructions on the use and operation of all relevant equipment and on the handling and preparation of items for testing/calibration, where the absence of such instructions could jeopardize the results of tests/calibrations. All instructions, standards, manuals and reference data relevant to the work of the laboratory shall be maintained and be readily available to personnel.

7.2 Selection of methods

The laboratory shall use test/calibration methods, including those for sampling, which meet the needs of the client and which are appropriate for the

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tests/calibrations it undertakes, preferably those published as international, regional or national standards. The laboratory shall ensure that it uses the current edition of the standard unless it is not appropriate or possible to do so. When necessary, the standard shall be supplemented with additional details to ensure consistent application.

When the client does not specify the methods to be used, the laboratory shall select appropriate methods that have been published either in international, regional or national standards, or by reputable technical organisations, or in relevant scientific texts or journals. In-house methods may also be used if they are appropriate for the intended use.

The laboratory shall inform the client when the method proposed by the client is considered to be inappropriate or out of date.

7.3 Methods not covered by standard specifications

When necessary to employ methods not covered by standard specifications, these shall be subject to agreement with the client and shall include a clear specification of the requirements and the objectives of the test/calibration. The method developed shall be validated as necessary before use, and be available for examination by the client and other authorized recipients of the relevant reports.

Test/calibration methods and procedures shall normally be produced prior to the tests-and/or calibrations being performed and shall contain at least the following information:

- (a) scope;
- (b) description of the type of item to be

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tested or calibrated;

- (c) parameters or quantities to be determined;
- (d) apparatus, equipment, reference standards and reference materials required;
- (e) environmental conditions required and any stabilization period needed;
- (f) description of the procedure, including:
 - affixing identification marks, handling, transporting, storing and preparing items,
 - checks to be made before the work is started,
 - checking that the equipment is working properly and, where required, calibrating and adjusting the equipment before each use,
 - method of recording the observations and results,
 - the safety measures to be observed;
- (g) criteria and/or standards for approval/rejection;

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- (h) data to be recorded and method of analysis and presentation;
- (i) procedure for estimating uncertainty.

7.4 Validation of methods

7.4.1 The laboratory shall verify that it can conduct tests as per standard specifications before carrying out such work for clients.

7.4.2 The laboratory shall validate standard, non standard and new test/calibration methods to confirm that the methods are suitable for the intended use. The validation shall be as extensive as is necessary to meet the needs in the given application or field of application. The laboratory shall record the results obtained and the procedure used for the validation.

7.4.3 The suitability of the method may be checked and confirmed by comparing the method with specified requirements typical for the intended use. The range and accuracy of the values obtainable from this method (e.g. the uncertainty of the result detection limit, selectivity of the method, linear limit of repeatability and/or reproducibility, robustness against external influences and/or cross-sensitivity against interference from the matrix of the sample/test object) as assessed for the intended use, shall be relevant to the customer's needs.

7.4.4 A validation shall be completed by a statement by the laboratory that the method is fit for the intended use.

7.5 Estimation of measurement uncertainty

For testing laboratories, this requirement applies whenever the client requires uncertainties of measurement for specific tests or when the uncertainty is likely to adversely affect compliance with a specification.

When estimating the uncertainty of the results of tests, all uncertainty components which are of importance in the given situation shall be taken into account using appropriate methods of analysis. Sources contributing to the uncertainty include the reference standards and reference materials used, methods and equipment used, the environmental conditions, the condition of the item being tested or calibrated, and the operator.

7.6 Control of data

7.6.1 Calculations and data transfers shall be subject to appropriate checks in a systematic manner.

7.6.2 When computers or automated equipment are used for the capture, processing, recording, reporting, storage or retrieval of test or calibration data, the laboratory shall ensure that:

- (a) computer software, including any software built into equipment, is documented in sufficient detail and suitably validated or otherwise checked as being adequate for use;
- (b) procedures are established and implemented for protecting the integrity of data; such procedures shall include, but not be limited to, integrity of data entry or collection,

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data storage, data transmission and data processing;

- (c) computers and automated equipment are maintained to ensure proper functioning and are provided with the environmental and operating conditions necessary to maintain the integrity of test data.

8 Request for test/calibration

8.1 Each request for testing/calibration shall be reviewed by the laboratory to ensure that:-

- (a) the requirements including the methods to be used, are adequately defined, documented and understood;
- (b) the laboratory has the capabilities and resources to meet the requirements;
- (c) the appropriate test/calibration method is selected.

Records of any changes shall be maintained.

9 Handling of test items

9.1 The laboratory shall have procedures for the receipt, handling, protection and retention or disposal of test/calibration items, including all provisions necessary to protect the integrity of the laboratory.

9.2 The laboratory shall have a system for identifying test/calibration items. The identification shall be

retained throughout the life of the item in the laboratory.

9.3 Any abnormalities noted in the sample collected shall be recorded and the client shall be informed.

9.4 The laboratory shall have appropriate facilities for avoiding deterioration or damage to the test/calibration item during storage, handling, preparation and test instructions provided with the item shall be followed.

10 Reporting the results

10.1 The results of each test/calibration, or series of tests/calibrations carried out by the laboratory shall be reported accurately, clearly, unambiguously and objectively, and in accordance with any specific instructions in the test/calibration methods.

The results shall normally be reported in a test/calibration report (sometimes called test certificate) and shall include all the information requested by the client and necessary for the interpretation of the test or calibration results and all information required by the method used. This information is specified in **10.2.1** and **10.2.2**.

In the case of in-house tests, and in the case of a written agreement with the client, the results may be reported in a simplified way. The information required in **10.2** and not reported shall be readily available in the laboratory which has carried out the tests and/or calibrations.

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10.2 Test reports and calibration certificates

10.2.1 Each test report or calibration certificate shall normally include at least the following information:

- (a) a title (e.g. 'Test Report');
- (b) name and address of laboratory and location where the tests were carried out, if different from the address of the laboratory;
- (c) unique identification of the report or certificate (such as serial number) and of each page, the total number of pages and the date of issue;
- (d) name and address of the client placing the order;
- (e) description and unambiguous identification of the item(s) tested;
- (f) date of receipt of test item(s) and date(s) of performance of test or calibration as appropriate;
- (g) test or calibration results;
- (h) reference to sampling procedures used by the laboratory where these are relevant to the validity or application of the results;
- (i) the name(s), title(s) and signature(s) or equivalent identification of person(s) authorizing the report or certificate;

- (j) where relevant, a statement to the effect that the results relate only to the items tested or calibrated.

10.2.2 In addition to the requirements listed in 10.2.1, test reports shall normally include:

- (a) characterisation and condition of the test item(s);
- (b) identification of the test/calibration method(s) used, or unambiguous brief description of any non-standard method used;
- (c) identification of the standard(s) or specification(s) relevant to the test method or procedure;
- (d) deviations from, additions to, or exclusions from the test method, and information on specific test conditions such as environmental conditions;
- (e) where relevant, a statement of compliance/non-compliance with design or performance specifications;
- (f) where applicable, a statement on the estimated uncertainty of the result;

10.2.3 In addition to the requirements listed in 10.2.1, test/calibration reports containing the results of sampling normally include:

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- (a) date of sampling;
- (b) unambiguous identification of substance, matrix, material or product sampled (including name of manufacturer, model or type of designation and serial numbers as appropriate);
- (c) location of sampling, including any diagrams, sketches or photographs;
- (d) reference to sampling plan used;
- (e) details of any environmental condition during sampling that may affect the interpretation of the test results;
- (f) reference to sampling method or procedure used;
- (g) any standard or other specification for the sampling method or procedure, and deviations, additions to, or exclusions from the specification concerned.

10.2.4 In addition to the requirements listed in **10.2.1**, calibration certificates normally include:

- (a) a reference to the standard specification used or a brief description of the method;
- (b) the conditions (e.g. environmental) under which the calibrations were made;

- (c) the uncertainty of measurement and/or a statement of compliance with an identified metrological specification;
- (d) a statement as to how traceability measurement to international/national standards is assured.

10.3 Professional judgement

When professional judgements are included in report, they shall be clearly separated from the test results. The laboratory must be able to show that it has documented the basis upon which the professional judgement has been made if such information is not included in the test report.

10.4 Testing obtained from sub-contractors

Where the test/calibration report contains results of tests/calibrations performed by sub-contractors, these results shall be clearly identified.

10.5 Electronic transmission results

The laboratory shall ensure that, where clients require transmission of test results by telephone, telex, facsimile or other electronic or electromagnetic means, personnel follow procedures that ensure that the requirements of this standard are met and that confidentiality is preserved.

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10.6 Lay-out of reports and certificates

Attention shall be paid to the lay-out of the report or certificate, especially with regard to the presentation of the test data and ease of assimilation by the reader. The format shall be designed to accommodate each type of test carried out and to minimise the possibility of misunderstanding or misuse. The headings shall be standardized as far as possible.

10.7 Amendments to reports and certificates

Material amendments to a report after issue shall be made only in the form of a further document, or data transfer, which includes the statement 'Supplement to Test Report', serial number (or as otherwise identified), or an equivalent form of wording. Such amendments shall meet all the requirements of this standard.

11 Assuring the quality of test/calibration results

The laboratory shall ensure the quality of results by monitoring test/calibration results. The monitoring shall be planned and reviewed and may include:

- (a) internal quality control;
- (b) participation in inter-laboratory comparison or proficiency testing programmes;
- (c) regular use of certified reference materials and/or in-house quality control using secondary reference materials;

- (d) replicate tests using the same or different methods;
- (e) re-testing of retained items;
- (f) correlation of results for different characteristics of an item.

12 Records

- 12.1** The laboratory shall establish and maintain procedures for identification, collection, indexing, access, storage, maintenance and disposition of quality and technical records.
- 12.2** The laboratory shall ensure that it has recorded such information that might be needed in a future dispute situation.
- 12.3** All records shall be legible and shall be stored and retained in such a way that they are readily retrievable in facilities that provide a suitable environment to prevent damage or deterioration and prevent loss. Retention times of records shall be established and recorded.
- 12.4** All records shall be held secure and in confidence to the client.
- 12.5** The laboratory shall have procedures to protect data held on computers at all times and to prevent unauthorized access to or amendment of data on computers.

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12.6 Technical records

The laboratory shall, when sampling is within the scope of the responsibilities of the laboratory, have procedures for recording and reporting relevant data and operations relating to sampling and forms part of the testing that is undertaken.

12.7 These records shall include the sampling procedure used, the identification of the sampler, environmental conditions and the diagrams or other equivalent means of identifying the sampling location as necessary and if appropriate, the statistics the sampling procedures are based upon.

12.8 All observations and calculations shall be clearly and permanently recorded at the time they are made. When mistakes occur in records, such as observations or calculations, each mistake shall be crossed out, not erased, made illegible or deleted, and the correct value entered alongside. All such alterations to records shall be signed by the person making the correction. In the case of computer collected data, similar measures shall be taken to avoid loss or change of original data.

12.9 The laboratory shall retain on record original observations, calculations and derived data, calibration records, staff records, quality records, review records and a copy of each test report (test certificate) issued, for a defined period. The records for each test or calibration shall contain sufficient information to facilitate, if possible, identification of factors affecting the uncertainty and enable the test to be repeated under conditions as close as possible to the original.

The records shall include the identity of the personnel responsible for sampling, performance of each test and checking of results.

13 Control of nonconforming testing and/or calibration work

13.1 The laboratory shall have procedures that shall be implemented when it establishes that any aspect of its testing or the results of this work, does not conform with its own procedures or the agreed requirements of the client. The policy and procedures shall ensure that:

- (a) responsibilities and authorities for the management of nonconforming work are designated;
- (b) the actions to be taken when nonconforming work is identified are defined;
- (c) an evaluation of the significance of the nonconforming work is made;
- (d) work is halted and reports and certificates withheld as necessary;
- (e) remedial actions are taken immediately, together with any decisions about the acceptability of the nonconforming work;
- (f) where necessary, the results of nonconforming work already released

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to clients are recalled;

- (g) the responsibility for authorization of the resumption of work is defined.

13.2 Where the evaluation indicates that the nonconforming work could recur or that there is doubt about the laboratory's compliance with its own procedures, the corrective action procedures shall be promptly followed to identify the root causes of the problem and to eliminate these causes.

14 Corrective action and preventive action

14.1 General

The laboratory shall establish procedures and shall designate appropriate authorities for implementing corrective action when nonconforming work or departures from procedures in the system have been identified.

Any corrective action taken to eliminate the causes of non-conformance or other departures shall be to a degree appropriate to the magnitude of the problems and commensurate with the risks encountered.

The laboratory shall document and implement any required changes to the operational procedures resulting from corrective action investigations.

14.2 Cause analysis

Corrective action procedures shall include an investigation process to determine the root causes of the problem.

14.3 Corrective actions

The laboratory shall identify possible causes and potential corrective actions. It shall select the actions most likely to eliminate the problem and to prevent it recurring.

14.4 Monitoring of corrective actions

After having implemented the action plans, the laboratory shall monitor the results to ensure that the actions taken have been effective in overcoming the problems originally identified.

14.5 All operational procedures shall be systematically reviewed at regular intervals to identify any potential sources of non-conformance and any opportunities for improvement, either technical or with the system. Action plans shall be developed, implemented and monitored, to reduce the likelihood of occurrence of such non-conformance and to take advantage of the improvement opportunities.

14.6 After the implementation of preventive actions, the laboratory shall monitor the results to establish any reduction in deficiencies or other improvements in this operational area, thereby establishing the effectiveness of the preventive action.

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O. 21/2003

**GUYANA NATIONAL BUREAU OF
STANDARDS (COMPULSORY STANDARD
SPECIFICATION) (RICE – SPECIFICATION,
SAMPLING TESTS AND ANALYSIS)
ORDER**

made under section 20

Citation.

1. This Order may be cited as the Guyana National Bureau of Standards (Compulsory Standard Specification) (Rice – Specification Sampling Tests and Analysis) Order 2003.

Standard
specification
declared
compulsory

2. The Standard for Rice – Specification, Sampling, Tests and Analysis specified in the Schedule is hereby declared compulsory.

SCHEDULE

GYS 211 : 2002

Rice

Specification, sampling, test and analysis

1. Scope

This standard prescribes the requirements for grades of paddy, cargo rice, milled rice, cargo parboiled rice and milled parboiled rice. It also specifies the general conditions for sampling and the methodologies for assessing the various factors used in determining the quality of rice.

2. Definitions

For the purpose of this standard, the following definitions shall apply:

2.1 aromatic rice (white or parboiled): Special varieties of rice that have a distinctive and characteristic aroma, e.g. basmati and jasmine rice:

2.2 broken kernel: Fragment of the kernel.

2.2.1 small broken kernel: Fragment of kernel, the length of which is less than or equal to one-quarter of the average length of the corresponding whole kernel:

2.2.2 medium broken kernel: Fragment of kernel, the length of which is less than or equal to one-half but greater than one quarter of the average length of the corresponding whole kernel.

2.2.3 large broken kernel: Fragment of kernel, the length of which is less than three-quarters but greater than one-half of the average length of the corresponding whole kernel.

2.2.4 chip: Fragment of kernel, which passes through a metal sieve with round perforations 1.4 mm in diameter.

2.3 bulk rice: Rice which is transported without specific packaging. Rice shipped in one (1) tonne sacks are not classified as bulk rice.

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- 2.4 bulk sample/composite:** The quantity of grain obtained by combining and mixing the increments taken from a specific lot.
- 2.5 cargo rice/brown rice/husked rice:** Rice from which the husk only has been removed.
- 2.6 chalky kernel:** A kernel, whole or broken, of which at least three-quarters of the surface has an opaque and floury appearance.
- 2.7 colour:** Refers to parboiled cargo/brown/husked rice which may be designated to be "parboiled light", "parboiled" or "parboiled dark", if the parcel meets colour requirements specified in the sub-sections below.
- 2.7.1 parboiled (light) rice:** Parboiled rice not distinctly coloured by the parboiling process and has a Kett whiteness meter reading of 26.0 -31.0.
- 2.7.2 parboiled rice:** Parboiled rice distinctly but not materially coloured by the parboiling process and has a Kett whiteness meter reading of 20.0 - 25.9.
- 2.7.3 parboiled (dark) rice:** Parboiled rice materially coloured by the parboiling process and has a Kett whiteness meter reading of 16.0 - 19.9.
- 2.8 consignment:** The quantity of grain dispatched or received at one time and covered by a particular contract or shipping document. It may be composed of one or more lots. Consignments should be considered in lots not exceeding 500 metric tons.

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- 2.9 damaged kernel:** Whole or broken kernel showing obvious deterioration due to moisture, pests or other causes excluding heat damaged kernel.
- 2.9.1 spotted kernel:** Whole or broken kernel showing a well defined small circle of dark colour or more or less regular shape.
- 2.9.2 stained kernel:** Whole or broken kernel which has undergone on a small area of its surface an obvious change in its natural colour. The stains maybe of different colours e.g., blackish, reddish and brown. Deep black striations are also considered stains.
- 2.9.3 pecks:** Whole or broken kernels of parboiled rice of which more than one quarter of the surface is brown or black in colour.
- 2.9.4 immature kernel:** A whole or broken kernel which is undeveloped.
- 2.9.5 shrivel kernel:** A kernel which has become shrunken and wrinkled from great heat or lack of moisture.
- 2.9.6 black kernel:** A kernel showing a distinctly dark colouration.
- 2.10 enriched rice:** Forms of milled rice to which nutrients or enriching substances have been added.
- 2.11 glutinous rice:** Special varieties of rice (*Oryza sativa* L. *glutinosa*), the kernels of which have a white and opaque appearance. The starch of

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glutinous rice consists almost entirely of amylopectin. It has a tendency to stick together after cooking.

- 2.12 green/immature kernel:** A whole or broken kernel, which is undeveloped and may be green in colour.
- 2.13 heat-damaged kernel:** A whole kernel, which has changed its normal colour as a result of heating. Parboiled rice in a batch of non-parboiled rice is also included in this category.
- 2.13.1 yellow kernel:** A whole kernel, which has undergone, totally or partially, though heating or other causes, a change in its natural colour and has taken a lemon or orange-yellow tone.
- 2.13.2 amber kernel:** A whole kernel, which has undergone through heating or other causes, a slight uniform change in colour over the whole surface; this change alters the colour of the kernel to a slight amber - yellow.
- 2.14 increments:** Small equal quantities of grains taken from different sampling points in the lot though out the full depth of the lot.
- 2.15 laboratory sample:** The quantity of grains removed from the bulk sample and intended for analysis or other examination.
- 2.16 lot:** A stated quantity, presumed to be of uniform characteristics, taken from the consignment, and allowing the quality to be assessed.
- 2.17 milling yield (head rice):** An estimate of the

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quantity of kernels having the length of $\frac{3}{4}$ or more of the average length of the whole kernel.

2.18 milled rice: Rice obtained after milling which involves removing all or part of the bran and germ from the husked rice.

2.18.1 under-milled rice: Rice obtained by milling husked rice, but not to the degree necessary to meet the requirements of well-milled rice.

2.18.2 well-milled rice: Rice obtained by milling husked rice in such a way that some of the germ, and all the external layers and most of the internal layers of the bran have been removed.

2.18.3 extra-well-milled rice: Rice obtained by milling husked rice, to the degree that almost all the germ, and all the external layers and the largest part of the internal layers of the bran, and some of the endosperm have been removed.

2.19 non-gelatinized kernel: Whole or broken kernel of parboiled rice with distinct white or chalky areas due to incomplete gelatinization of the starch.

2.20 paddy/paddy rice/rough rice: Rice retaining its husk after threshing.

2.21 parboiled rice: Rice, the starch of which has been fully gelatinized by soaking paddy or cargo/brown/husked rice in water followed by a heat treatment and a drying process.

2.22 red kernel: Whole or broken kernel, having a red coloured pericarp (bran layer) covering the

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complete surface, but excluding heat-damaged kernels.

2.23 red-striated kernel: Kernel, whole or broken, with red-streaks, the lengths of which are greater than or equal to one-half of that of the whole kernel, but where the surface covered by these red streaks is less than one-quarter of the total surface.

2.24 total milled yield: An estimate of the quantity of whole kernels and broken kernels that are produced in the milling of cargo rice to a well-milled degree.

2.25 whole kernel/head rice: Kernels of rice which are equal to or greater than three-quarters of the average kernel length.

3. Classification

Rice shall be classified as follows:-

3.1 Long grain rice - Rice with 80% or more of kernels after milling to a well-milled degree, having a length of at least 6.67 mm and a length/width ratio of over 3.0.

3.2 Medium grain rice - Rice with 80% or more of kernels after milling to a well-milled degree, having a length of 6.20 to 6.66 mm and a length/width ratio between 2.0 and 3.0.

3.3 Short grain rice - Rice with 80% or more of kernels after milling to a well-milled degree, having a length of less than 6.20 mm and a length/width ratio of less than 2.0.

4. Principles/conventions governing the application of this standard

4.1 All determinations shall be on the basis of the original sample.

4.2 Percentages shall be determined on the basis of weight.

4.3 Kernels with defects, once assigned to a particular category, cannot be used in another category.

4.4 Broken rice assessments: Total broken rice is extracted, to calculate the percentage broken

4.4.1 Estimation of broken rice in mixed varieties: find the kernel fragments, the length of which is less than three-quarters of the average length of the corresponding whole kernels.

4.5 Discolouration (yellow, amber and heat damage) is estimated in the milled sample.

4.6 When a kernel has several defects, it shall be classified in the category where the maximum permissible value is the lowest.

4.7 All parts of kernels which get stuck in the perforations of a sieve shall be considered to be retained by the sieve.

4.8 Average length is determined on the basis of measuring the length of one-hundred (100) whole kernels chosen at random.

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- 4.9 Mechanical sizing of kernels shall be adjusted by methods given by the regulatory authority of the particular territory.
- 4.10 Moisture content in paddy or milled rice is determined by an approved device (Appendix B) in accordance with the associated prescribed procedures and/or by the **International Standards ISO 712:1985 Cereal and cereal products - Determination of moisture content.**
- 5 **General, organoleptic and health characteristic**
Rice shall be safe and suitable for human consumption.
Rice shall be free from abnormal flavours, odours, living or dead insects, insect fragments and mites.
- 5.1 **Musty or sour odours** - Cargo rice shall be free of musty, earthy and mouldy ground odours. There shall be no sour odours, which are rancid or acidic. When a musty or sour odour is found in cargo rice, the grader shall record same on the Inspection Certificate.
- 5.2 **Commercially objectionable foreign odours** - Odours entirely foreign to rice and which make the rice unfit for normal commercial use. These include fertilizer, hides, oil products, smoke, fire-burnt paddy and decaying animal or vegetable matter.
- 5.3 **Foreign matter** - Organic and inorganic components other than kernels of rice, whole or broken. Organic extraneous matters such as seeds, husk, animal droppings, fragments of straws, etc. Inorganic extraneous matters such as stones, sand,

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dust, etc.

- 5.4 Hygiene** - The product shall be prepared and handled in accordance with the appropriate sections of the **Codex Alimentarius Commission, General Principles of Food Hygiene (Revised Draft; January 1994, Volume A, Edition 2, 1985)**.
- 5.5 Enriched rice** - Vitamins, minerals and other substances may be added to rice in conformity with the limits shown in **Table 7**.
- 5.6 Microbiological requirements**

TABLE 1
Microbiological requirements for rice

Limit	Quantitative range (g)	
	White rice	Parboiled rice
Moulds	$10^2 - 10^4$	$\leq 10^2$
Yeast	$10^2 - 10^4$	$\leq 10^2$
Aerobic plate count	$10^2 - 10^6$	$\leq 10^2$
Coliform count	$10^2 - 10^4$	$\leq 10^2$
E. coli	$<10^2 - 10^3$	$\leq 10^2$

5.7 Contaminants

- 5.7.1** The products covered by the provisions of these standards shall be free of heavy metals in amounts which may represent a hazard to human health.
- 5.7.2** Rice shall comply with those maximum residue limits for pesticides established by **Codex**

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Alimentarius Commission.

5.7.3

6. Grade designation

The grade designation for all classes of rice for processing shall include the following order:-

1. Extra A
2. A
3. B
4. C
5. Sample grade.

7. Grade requirements

7.1 Factors for grade requirements shall be in accordance with values (percentage %) shown in **Tables 2-6**. The characteristics of sample grade rice are defined in **7.2**.

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Table 2
Requirements for grades of paddy
(All values are maximum except where otherwise indicated)

Factors	Extra A Premium (%)	A (%)	B (%)	C (%)
Moisture content	14.0	14.0	14.0	14.0
Damaged kernels (singly or combined)	1.0	2.0	2.5	3.5
Red kernels	1.0	2.5	3.5	5.5
Heat-damaged kernels	0.1	0.2	0.6	1.5
Green kernels	2.0	3.0	4.0	6.0
Chalky kernels	2.0	3.0	4.0	6.0
Milling yield (head rice Minimum)	55.0	50.0	45.0	40.0
Total milled yield (Minimum)	70.0	67.0	65.0	63.0

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Table 3
Requirements for grades of cargo rice
(All values are maximum except where otherwise indicated)

Factors	Extra A Premium (%)	A (%)	B (%)	C (%)
Moisture content	14.0	14.0	14.0	14.0
Damaged kernels (Singly or combined)	1.0	2.5	3.0	4.0
Red kernels	1.0	2.5	3.5	5.5
Yellow kernels	0.1	0.2	0.6	1.5
Amber kernels	0.5	0.8	1.0	2.0
Green kernels	2.0	3.0	4.0	6.0
Paddy	0.5	1.0	1.5	2.0
Milling yield (Head rice) (Minimum)	72.0	71.0	70.0	65.0
Total milled yield (Minimum)	88.0	86.0	82.0	80.0
Broken kernels	6.0	8.0	12.0	15.0
Chalky kernels	2.0	3.0	4.0	6.0
Total foreign matter	0.5	1.0	1.0	1.0
Organic	0.5	1.0	1.0	1.0
Inorganic	0.0	0.0	0.0	0.0

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Table 4
Requirements for grades of milled rice
(All values are maximum except where otherwise indicated)

Factors	Extra A Premium (%)	A (%)	B (%)	C (%)
Moisture content	14.0	14.0	14.0	14.0
Damaged kernels (Singly or combined)	0.5	1.0	2.0	3.0
Red striated kernels	0.1	0.5	1.0	2.5
Yellow kernels	0.1	0.2	0.6	1.5
Amber kernels	0.5	0.8	1.0	2.0
Chalky kernels	2.0	4.0	6.0	8.0
Total broken kernels	4.0	7.0	15.0	25.0
-Chips	0	1.0	2.0	3.0
Paddy	0	0.1	0.5	0.5
Total foreign matter	0.1	0.2	0.5	0.5
Organic	0.1	0.2	0.5	0.5
Inorganic	0	0	0	0

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Table 5
Requirements for grades of cargo parboiled rice
(All values are maximum except where otherwise indicated)

Factors	Extra A Premium (%)	A (%)	B (%)	C (%)
Moisture content	14.0	14.0	14.0	14.0
Broken	4.0	6.0	8.0	10.0
Damaged kernels (Singly or combined)	1.0	1.5	2.0	3.0
Non-gelatinized kernels	0.1	0.2	0.3	0.4
Red kernels	1.0	1.5	3.0	3.5
Total milled yield (Minimum)	88.0	85.0	82.0	80.0
Milled yield (Head rice) (Minimum)	84.0	79.0	74.0	70.0
Paddy	1.0	1.0	1.5	1.5
Total foreign matter	0.1	0.2	0.5	0.5
Organic	0.1	0.2	0.5	0.5
Inorganic	0	0	0	0
Colour*				

* Colour classification applicable to all grades analysed on milled samples (Kett whiteness meter):

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Category of rice	Meter reading
Parboiled light	26.0 – 31.0
Parboiled medium	20.0 – 25.9
Parboiled dark	16.0 – 19.9

Table 6
Requirements for grades of milled parboiled rice
(All values are maximum except where otherwise indicated)

Factors	Extra A Premium (%)	A (%)	B (%)	C (%)
Moisture content	14.0	14.0	14.0	14.0
Paddy	0.0	0.1	0.2	0.3
Broken kernels	4.0	6.0	8.0	10.0
Damaged kernels (Singly or combined)	0.5	1.0	1.5	2.5
Non-gelatinized kernels	0.1	0.2	0.3	0.4
Red striated kernels	0.5	1.0	1.5	2.0
Total foreign matter	0.1	0.2	0.5	0.5
Organic	0.1	0.2	0.5	0.5
Inorganic	0	0	0	0
*Colour				

* Colour classification applicable to all grades (Kett whiteness meter):

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Category of rice	Meter reading
Parboiled light	26.0 – 31.0
Parboiled medium	20.0 – 25.9
Parboiled dark	16.0 – 19.9

7.2 Sample grade shall be paddy, cargo, milled, cargo parboiled and milled parboiled rice which :-

- (1) Does not meet the requirements for any of the grades from Extra A (Premium) to C;
- (2) Is not an approved variety;
- (3) Has a nasty or sour odour;
- (4) Has an objectionable odour;
- (5) Insect-infested or of distinctly low quality.

8 Compositional requirements for enriched rice

Table 7
Limits of vitamins and minerals used to enrich rice

Vitamins and minerals	Allowances
Folic acid	Not less than 0.7 mg and not more than 1.4 mg.
Niacin or niacinamide	Not less than 16 mg and not more than 32 mg.
Thiamin	Not less than 2.0 mg and not more than 4.0 mg.
Riboflavin	Not less than 1.2 mg and not more than 2.4 mg.
Vitamin D	Not less than 250 U.S.P units and not more than 1,000 U.S.P units.
Calcium (Ca)	Not less than 300 mg

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	and not more than 1,000 mg.
Iron (Fe)	Not less than 13 mg and not more than 26 mg.
*Butylated hydroxytoluene	This must be in an amount as not to exceed 0.0033 percent by mass of the finished product.

* This substance is a preservative which is not used to enrich rice; it is an optional ingredient used in enriched rice.

8.1 When these listed vitamins, minerals and other substances are added to the rice they can be combined with harmless substances to render them insoluble in water. These substances can only be added in forms that are harmless and can be assimilated by the body.

8.2 If the vitamins, minerals and other substances are to be retained after the rice is washed and cooked, the quantity of the substances listed in **Table 7** should be no less than 85 percent of minimum quantity stated.

9 Packaging and labelling

9.1 Packaging - The packaging shall not transmit any smell or taste and shall not contain substances which may damage the product or constitute a health risk. New, clean, sufficiently strong and machine-stitched bags shall be used.

9.2 Labelling - Each package or container shall be

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properly labelled in compliance with the **Caricom Standard Specification for Labelling of Commodities: General Principles (CCS: Part 1: 1994)**.

When any enriching substances are added to the milled rice, the label shall have the common name of the rice preceded by the word "enriched", for example, "Enriched rice" or "Enriched parboiled rice."

When the optional ingredient, butylated hydroxytoluene, is added to the rice, the label shall have the following statement prominently stated on the label, "Butylated hydroxytoluene added as a preservative." Such a statement is needed so that it would be understood by the ordinary individual under customary conditions of purchase.

10 Sampling

The procedures used to carry out sampling of grains shall comply with the **International Standard, ISO 950 : 1979, Cereals – Sampling**.

11 Methods of Test and Analysis

11.1 Factor analysis for the various grading requirements

11.1.1 Procedure 1: Foreign odour/pests

- (1) Smell the sample for foreign odours.
- (2) Visually examine for the presence of live or dead insects, their fragments and excreta, etc.
- (3) Record findings.

11.1.2 Procedure 2: Moisture content

- (1) Using a divider reduce a sample of 500 g to two samples of 100 g each.
- (2) Use an approved moisture meter (Appendix B) with its associated procedures to test each 100 g sample for moisture content and record.
- (3) Combine samples when tests are completed.
- (4) The test should be carried out in duplicate.

Note: ISO 712:1985, **Cereals and cereal products – Determination of moisture content, can be used alternatively.**

11.1.3 Procedure 3: Classification length/width ratio**Average kernel length**

- (1) Using a divider, reduce a sample of 200 g to two samples of 35 g each.
- (2) From one 35 gram sample, select 100 whole kernel at random. Each kernel measured individually with a dial calliper, with accuracy of 0.01 mm. The average length is calculated. The analysis is repeated using the second 35 g sample.
- (3) Average length of kernels for both samples is calculated.
- (4) Measured kernels are returned to the samples.

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Determination of width

- (1) Measure the width of each kernel individually with a dial caliper, with an accuracy of 0.01 mm or measure kernels in groups of 10.
- (2) Calculate and record the average length/width ratio.

Length/width ratio of kernels:

Extra long	> 3.5
Long	3.0 – 3.4
Medium	2.0 – 2.9
Short	< 2.0

11.1.4 Procedure 4: Broken kernels

- (1) Weigh the two (approximately 35g) samples to ascertain correct weight.
- (2) Remove all broken kernels.
- (3) Weigh the broken kernels, and calculate the percentage as follows:

$$\text{Broken in sample (\%)} = \frac{\text{Weight of broken}}{\text{Weight of sample}} \times 100$$

- (4) Calculate the average of the two samples and record the result as the representative percentage.
- (5) Record result.

11.1.4 Procedure 5: Analysis of other factors

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- (1) Return broken rice to the two 35 g samples at the end of procedure 4.
- (2) Analyse samples for the following factors as requested in the respective grading requirements:-
 - (a) Red kernels;
 - (b) Red striated kernels;
 - (c) Non-gelatinized kernels;
 - (d) Heat-damaged kernels (Amber and yellow);
 - (e) Green kernels;
 - (f) Chalky kernels;
 - (g) Paddy;
 - (h) Foreign matter (Organic and inorganic);
and
 - (i) Damaged kernels;

- (3) These are separated and weighed and the percentage of each factor determined as follows:-

$$\text{Factor in sample (\%)} = \frac{\text{Weight of factor}}{\text{Weight of sample}} \times 100$$

Calculate the average of the two samples and record result.

Note: The average is used as the representative percentage.

11.1.6 Procedure 6: Milling yield (Head rice)

- (1) Make a test run in the milling machine with approximately 200g of cargo rice to determine the time taken to achieve a well milled degree (This

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time will vary with different varieties and types).

- (2) Having determined the milling time, weigh approximately 200g of cargo rice and mill for the length of time determined.
- (3) Weigh the total milled rice (A) and record the weight obtained.
- (4) Using a sample divider, reduce the milled rice to two working samples of 50 g each.
- (5) Remove all broken kernels from the first 50 g sample. Weigh and record the value of the head rice (B) obtained from this sample.
The milling yield of the first 50g sample is calculated using the formula below:-

$$\text{Head rice (B) (\%)} = \frac{\text{Head rice} \times 100}{\text{Sample weight (50)}}$$

$$\text{Milling yield (\%)} = \frac{(B/100) \times A \times 100}{200}$$

A worked example is shown below:

$$\text{Head rice (B)} = 42 \text{ g}$$

$$\text{Total milled rice} = 131 \text{ g}$$

$$= \frac{0.84 \times 131 \times 100}{200} = 55.02 \text{ \%}$$

Milling yield determination is repeated on the second 50g sample and the average value recorded. If the difference

between the results of the two determinations, carried out simultaneously, exceeds 1.0% absolute, the test shall be repeated.

11.1.7 Procedure 7: Colour

Using a representative sample:

- (1) Pass sample through boerner divider and reduce to three sub-samples of at least 20 g.
- (2) Weigh accurately the same amount (20g approximately) for each sub-sample.
- (3) Standardise meter by inserting sample case with calibration plate and by pressing sensitivity button if reading does not correspond to 86.2.
- (4) Place sample holder with first sub-sample (20 g) into the machine.
- (5) Record meter reading.
- (6) Discard sample.
- (7) Repeat steps 3 to 6 using the other two samples.

Meter sensitivity reading can vary by + / -0.4.

Category	Meter reading
Parboiled light	26.0 31.0
Parboiled medium	20.0 25.9
Parboiled dark	16.0 19.9

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11.2 Microbiological analysis

The methods for determining the substances listed in **Table 1** shall comply with the **Official Methods of Analysis of the Association of Official Analytical Chemists (AOAC), (Latest edition)**.

11.3 Analysis of vitamins, minerals and other substances

The methods for determining vitamins, minerals and other substances listed in **Table 7** shall comply with the **Official Methods of Analysis of the Association of Official Analytical Chemists (AOAC), (Latest edition)**.

Appendix A

Recommended list of equipment used in testing and analysis

1. Ohaus triple beam balance
Model 2610 (750-S)
2. Ohaus digital balance
Model GA 200
100/120V 220/240V Ac
50/60 Hz
3. Ohaus scout 2
Model SC 4010
4. Ohaus navigator
Model NV 610N
110 VAC 50/60 Hz
5. Satake testing miller
Model TM - 05
110 VAC 50/60 Hz
6. Leroy testing miller
Model 1 M - 05

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- 110 VAC 50/60 Hz
7. Mc Gill No. 3 rice miller
110 VAC 50/60 Hz
8. Satake mini testing sheller
Model THU - 35 A
110 VAC 50/60 Hz
9. Rimac mini testing sheller
Model TM - 5
110 VAC 50/60 Hz
- [paras 10 – 20 (inclusive) were omitted from the
Official Gazette]
21. Seedburo heavy duty boerner divider
Model No. 34
22. Seedburo precision divider
Model No. 106
23. Seedburo riffle divider
Model No. 275
24. Seedburo rice sizing machine
Model No. 539 SET
115VAC60Hz
25. Kett whiteness meter
C-300
90-220 VAC 50/60Hz
26. Indented plates
Indentations: 3mm, 4mm, 5mm and 5.5mm
-

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O. 22 of 2003

**GUYANA NATIONAL BUREAU OF
STANDARDS (COMPULSORY STANDARD
SPECIFICATION) (PNEUMATIC TYRES FOR
HIGHWAY COMMERCIAL VEHICLES)
ORDER**

made under section 20

Citation.

1. This Order may be cited as the Guyana National Bureau of Standards (Compulsory Standard Specification) (Pneumatic Tyres for Highway Commercial Vehicles) Order 2003.

Standard specification declared compulsory.

2. The Specification for Pneumatic Tyres for Highway Commercial Vehicles specified in the Schedule is hereby declared compulsory.

SCHEDULE

GYS 194:2000

**Specification
for
Pneumatic Tyres for Highway
Commercial Vehicles**

1 Scope

This standard specifies physical dimensions, performance and marking requirements for new and used pneumatic tyres for highway commercial vehicles. Test methods for determining conformity to the performance requirements are also included.

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2 Definitions

For the purpose of this standard, the following definitions shall apply:

- 2.1 commercial vehicle tyre:** A tyre for use on vehicles which carry ten or more persons and/or with a Maximum Gross Weight (MGW) in excess of 3000 kg, as well as light trucks.
- 2.2 light truck:** A self-propelled vehicle which is designed primarily to transport property or special purpose equipment and has a maximum gross weight of 3000 kg or less.

3 Tyre designation

- 3.1** The designation of the tyre shall be shown on its sidewall in the manner described in 9.0 of this standard and shall include the following markings, to be shown close to each other:

- (1) Size and construction characteristics;
- (2) Service condition characteristics.

- 3.2** These characteristics shall be indicated in the form given below or as contained in the relevant publication of at least one of the organisations listed in 5.1.1.

3.3 Dimensional and constructional characteristics

- 3.3.1** The characteristics shall be indicated as follows:

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nominal	nominal	tyre	nominal
section	aspect	construction	rim
width	ratio	code	diameter
			code

or

nominal	tyre	nominal
section	construction	rim
width	code	diameter

Note:The sequence from left to right shall be maintained.

3.3.2 Nominal section width

3.3.2.1The nominal section width shall be expressed in millimetres for tyres fitted to 5° taper rims and 15° taper rims (code-designated).

3.3.3 Nominal aspect ratio: See GYS 66:1997, “Definition of terms used in the pneumatic tyre industry”.

3.3.4 Tyre construction code

3.3.4.1The tyre construction code shall be as follows:

R for radial ply tyres

For tyres of bias-belted or diagonal construction, the type shall be clearly marked on the sidewall, using markings in accordance with 10.0 of this standard.

Note: The use of another code letter (for example, in the case of a new construction type) shall first be

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remitted to the Guyana National Bureau of Standards (GNBS) for acceptance and inclusion in this list.

3.3.5 Nominal rim diameter

3.3.5.1 The nominal rim diameter shall be expressed by a code of 5° tapered bead seat rims and 15° tapered bead seat (drop centre) rims (See **Table 4** for code correlations).

3.3.5.2 However, it shall be expressed in millimetres for new and future concepts where the use of existing tyres on new concept rims or of new concept tyres on existing rims would be incompatible.

3.4 Service condition characteristics

3.4.1 The characteristics shall be indicated as follows:

3.4.1.1 Load index single/ load index dual speed symbol - The tyre load capacity corresponding to the service conditions specified by the tyre manufacturer shall be indicated by a load index taken from **Table 5**. This indication is understood to be for a single/dual mounting. The load capacity of the tyre/tyres should meet or exceed the designed GVW of the vehicle on which it is mounted. Example, For minibuses, the tyre must be a commercial 6 ply or, load range C or have a load index greater than 100.

3.4.1.2 Speed symbol - The speed symbol shall be indicated by a letter taken from Table 6 corresponding to the speed category. The speed category shall meet or exceed the maximum speed of the vehicle in which it is mounted.

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3.4.2 Other service characteristics

3.4.2.1 The word "TUBELESS" shall be used to characterise tyres that can be used without a tube.

3.4.2.2 The maximum permissible inflation pressure which shall be indicated in kPa. The air pressure in the tyre shall not exceed maximum air pressure designated on the tyre side wall.

3.4.2.3 Specific indications, if required, may be added to indicate:

1. The type of vehicle for which the tyre is primarily designed, by using a symbol C;
2. The temporary use of certain spare tyres using indications such as TEMPORARY USE and/or symbol T;
3. The direction of mounting;
4. The direction of rotation;
5. The type of tread pattern; and
6. Other characteristics.

3.4.2.4 Tyre shall be mounted on the approved type and size of rim as designated by the tyre manufacturer.

Note: Where any one of these optional markings is used it shall be so positioned that confusion shall not result from its proximity to any other service condition marking.

4 Inspection and selection of used tyres

4.1 Inspection

4.1.1 Used tyre inspection shall be made by trained, certified inspector. Each used tyre shall be cleaned and inspected outside then inside in order to detect all evident damages or injuries. The inspection shall include placing the used tyre on a mechanical spreader under adequate lighting (3200 lux), and distortion of the natural contour sufficient for visual inspection.

4.1.2 Each inspected tyre shall be certified to indicate whether it is acceptable or not acceptable for use on motor vehicles.

Note 1: The qualifications of the Inspector of used tyres shall be submitted to the Guyana National Bureau of Standards.

Note 2: The Guyana National Bureau of Standards recommends the use of electronic, ultrasonic and holographic casing inspection equipment which can aid in determining used tyre integrity.

4.2 Selection criteria for used tyres

4.2.1 A used tyre shall not be acceptable for motor vehicle use unless it has a minimum tread depth as categorised below:

Minibus/Van - 6 mm
Light truck - 8 mm
Heavy truck - 10mm

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A used tyre shall bear the following, permanently moulded on it at the time of the original manufacture:

- (1) A U.S. D.O.T./E.U. code, specifying date, year of manufacture and country of manufacture shall be present on at least one side wall of the tyre indicating that the tyre was originally manufactured to comply with FMVSS 109 - New pneumatic tyres or other recognised international bodies or practices.

N.B. This is necessary, since there are no testing facilities available in Guyana for the said tyres.

- (2) The size designation of the tyre;
- (3) The load range or maximum permissible load;
- (4) Sufficient information to allow the tyre to be identified as bias, bias belted or radial ply.

4.2.2 A used tyre containing any of the following weaknesses or injuries shall not be accepted for motor vehicle use:

- (1) Exposed cords due to tread wear or sidewall scuffing;
- (2) Radial or groove cracks extending to the cords;
- (3) Tread separation;
- (4) Weather cracking extending to cords;

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- (5) Broken, damaged, kinked or exposed bead wires;
- (6) Any visual evidence of belt damage;
- (7) Ply separation;
- (8) Porous liners or defective or open splices in liners extending to the cords;
- (9) Loose cords on the inner ply;
- (10) Damage to the inner or bead sealing areas on tyres identified as tubeless;
- (11) Evidence of having been run under-inflated or overloaded;
- (12) Casing break-up (flex break);
- (13) Generally weakened condition due to age, moisture, or exposure to oil or other chemical attack;
- (14) Injuries to the plies in the bead area;
- (15) Sidewall separation; or
- (16) Nail hole or other injuries of sufficient sizes and numbers that cannot be repaired using acceptable commercial practice.

5 Requirements

5.1 Physical dimensions, rims, and maximum load ratings

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5.1.1 Each tyre shall comply with the requirements of the relevant publication of at least one of the following organisations with respect to physical dimensions, alternative rim fitments that may be used with each type of tyre, and maximum load rating.

- (1) The Tire and Rim Association, Incorporation (USA);
- (2) The Japan Automobile Tire Manufacturers' Association Incorporation (Japan);
- (3) The European Tyre and Rim Technical Organisation (Belgium);
- (4) British Standards Institution (United Kingdom);
- (5) Deutsches Institut fur Normung (Germany);
- (6) Scandinavian Tyre and Rim Organisation (Scandinavia); and
- (7) The Tyre and Rim Association of Australia.

5.1.2 The requirements of this standard shall relate to the edition of the relevant publication current at the date of manufacture of the tyre.

5.2 Maximum load rating

5.2.1 If the maximum load rating for a particular tyre size is shown in one or more of the publications referred to in **5.1.1**, each tyre of that size designation shall have a maximum load rating that is not less than the published maximum load rating, or if there are differing published ratings for the same tyre

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designation, not less than the lowest published maximum load rating for the size designation.

5.3 Performance requirements

- 5.3.1** Each tyre shall be capable of meeting any of the applicable requirements set out in 5.3.4 and 5.3.5, when mounted on a test rim assembly corresponding to any rim designated by the tyre manufacturer for use with the tyre in accordance with 5.1.1.
- 5.3.2** A particular tyre need not meet further requirements after having been subjected to and having met any one of the tests given below.
- 5.3.3** Prior to testing the tyre shall exhibit no visual evidence of tread, sidewall, ply, cord, innerliner or bead separation, chunking, broken cord, cracking or open splices.
- 5.3.4** The following service condition characteristics shall be specifically emphasised as follow:
- (1) The load capacity of the tyre/tyres should meet or exceed the designed GVW of the vehicle on which it is mounted;
 - (2) The speed category shall meet or exceed the maximum speed of the vehicle in which it is mounted;
 - (3) The tyre shall be counted on the approved type and size of rim as designated on the tyre side wall.
 - (4) The air pressure in the tyre shall not exceed maximum air pressure designated on the tyre side wall.

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Example: For minibuses the tyre must be a commercial 6 ply or, load range C or have a load index greater than 100.

6 Test equipment

6.1 Test drum

6.1.1 The test drum shall be a cylindrical driven flywheel (drum) having a diameter of $1.7\text{ m} \pm 1\%$ or $2\text{ m} \pm 1\%$.

6.1.2 The surface of the drum shall be smooth steel. The width of the test surface shall be equal to or exceed the overall width of the test tyre.

6.1.3 For the test drum, the loading device may be dead-weight cantilevered system with a hydraulic system or with any other equivalent system. The loading capacity shall be adequate for the requirements of the test procedure and the accuracy shall be within $\pm 1.5\%$ of the full scale.

6.1.4 For the test drum, the speed capability of the equipment shall be adequate for the requirements of the test methods. The accuracy of the test drum speed shall be within $+20\text{ km/h}$ at the full scale.

6.2 Plunger

6.2.1 A cylindrical steel plunger of sufficient length with a hemispherical end and a diameter as shown in Table 1 with reference to tyre load index shall be used.

6.2.2 For the plunger equipment, the loading device shall be of hydraulic type of equivalent system with a maximum load capacity adequate for the

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requirements of the test methods and shall permit gradual application of the force. Indicators of displacement and of force shall be provided with an accuracy within + 1% of full scale.

6.2.3 For the plunger equipment, the speed of displacement shall be controlled with an accuracy within + 3% of full scale.

6.3 Inflation pressure gauges

6.3.1 Inflation pressure gauges shall have a maximum scale value of 1000 kPa with an accuracy of + 20 kPa.

7 Tyre procedures

7.1 Tyre strength

7.1.1 Preparation of tyre - Mount the tyre on a test rim and inflate it to the pressure specified for the maximum load rating in single formation, or maximum dual load, where they differ.

7.1.1.1 Maintain the assembly at a test room temperature of not less than 21° C for at least 3 hours.

7.1.1.2 Immediately before testing, re-adjust the inflation pressure to the pressure specified in **7.1.1**.

7.1.2 Test procedure - Position the plunger as near to the centre line as possible, avoiding penetration into the tread grooves, and force the plunger perpendicularly into the tread at a rate of 50 mm/minute \pm 2.5 mm/minute.

7.1.2.1 Record the force and distance of penetration just before the tyre breaks (**See Note 1**) at each of five test

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points approximately equally spaced around the circumference of the tyre. In case of tyres mounted on rim diameter codes 10 and smaller test the tyre at three approximately equally spaced points. Check the pressure before moving to the next test point.

7.1.2.2 If the tyre fails to break before the plunger is stopped on reaching the rim and the required minimum breaking energy is not achieved, then the tyre is deemed to have passed at that point.

7.1.2.3 Compute the breaking energy, W , in joules for each test point except those considered by **7.1.2.2**, by means of the following formula:

$$W = \frac{F \times P}{2000}$$

Where:

F is the force, in newtons; and

P is the penetration, in millimetres.

7.1.2.4 Determine the breaking energy value for the tyre by computing the average of the values obtained.

Note 1: When an appropriate device which automatically evaluates the value of the energy W is available, the penetration can be stopped shortly after having achieved the prescribed value.

2: In the case of tubeless tyres, means may be provided to ensure the retention of the inflation pressure for the duration of the test.

7.2 Tyre endurance

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7.2.1 Preparation of tyre - Mount the tyre on a test rim and inflate to the pressure corresponding to the maximum load rating marked on the tyre. Where a tyre is marked with single and dual load ratings, inflate to inflation pressure corresponding to the single maximum load rating.

7.2.1.1 Maintain the tyre and rim assembly at ambient temperature, which shall be at least 20° C, for at least 3 hours.

7.2.1.2 Immediately before testing re-adjust the tyre pressure to the pressure specified in **7.2.1**.

7.2.2 Test procedure - Mount the tyre and rim assembly on a test axle so that the tyre may be pressed radially against the outer face of the test drum.

7.2.2.1 During the test, the ambient temperature shall be maintained at between 20° C and 30° C, at or a higher temperature if the tyre manufacturer agrees.

7.2.2.2 Conduct each successive phase of the test, without interruptions, at the test speed with loads and test periods as shown in:

- (1) **Table 3a** for tyres with load index (single) up to 121 inclusive and speed symbol up to P;
- (2) **7.2.3** for tyres with load index (single) up to 121 inclusive and speed symbols Q and above.
- (3) **Table 3b** for tyres with load index (single) 122 and above.

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- 7.2.2.3 Throughout the test, for all types of tyres, the inflation pressure shall not be corrected and the test loads shall be maintained constant.
- 7.2.2.4 Immediately after the respective tyre has run the required time, measure the inflation pressure.
- 7.2.2.5 Remove the tyre from the test rim and inspect it.
- 7.2.3 Specific conditions for tyres with speed symbol Q and above.
- 7.2.3.1 The load applied shall be:
- (1) 90% of the maximum load rating on 1.7 m drum diameter;
 - (2) 92% of the maximum load rating on 2 m drum diameter.
- 7.2.3.2 Initial test speed shall be equal to the tyre's speed category minus 20 km/h.
- 7.2.3.3 Operate the equipment to bring the test drum speed up to the initial test speed over a period of 10 minutes.
- 7.2.3.4 Operate the equipment with the test drum speed at the initial test speed for 10 minutes then at the initial test speed plus 10 km/h for at least 10 minutes.
- 7.2.3.5 Finally, operate the equipment for 30 minutes at the tyres speed category.
- 7.2.3.6 The total duration of the test is 1 hour.

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8 Sampling and testing to determine conformity

8.1 Sample size

8.1.1 For the purpose of testing to determine conformity with this standard, the size of the sample for testing shall be representative of the lot under consideration and shall be selected in accordance with GYS 183: 1999 (ISO 2859-1: 1989), "Sampling procedures for inspection by attributes - Part 1: Sampling schemes indexed by acceptable quality level (AQL) for lot-by-lot inspection or GYS 184: 1999 (ISO 3951: 1989)" Sampling procedures and charts for inspection by variables for percent nonconformity.

8.2 Test sample

8.2.1 Two tyres with identical characteristics, for examples, size designation and service description or maximum load rating and speed capability, shall comprise a test sample:

- (1) One tyre shall be used for the measurement of strength;
- (2) A second for the endurance test.

8.2.2 The pressures, loads and speeds shall be as specified for each test method.

8.2.3 Each test sample shall conform to the requirements specified in 5.3.4 and 5.3.5.

8.3 Conformity

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8.3.1 Where the samples taken in accordance with **8.1.1** and tested in accordance with **5.0** and satisfy all other requirements of this standard, the lot shall be deemed to conform with this standard.

9 Storage

9.1 New tyres shall be stored in accordance with **GCP 4: 1997, Code of Practice for the storage of tyres, inner tubes and flaps.**

10 Labelling requirements

10.1 Each tyre shall have permanently moulded on each sidewall, except as specified in (10), the following information in letters not less than 4.0 mm high and of a depth not less than 0.25 mm if below the background surface or not less than 0.40 mm if above the background surface:

- (1) The designation of dimensional and constructional characteristics;
- (2) The designation of load and speed characteristics;
- (3) The designation of other service characteristics;
- (4) The maximum load rating(s) for the tyre, marked unambiguously in one of the following forms:
 - (a) Tyres rated for single load only:

“MAXIMUM LOAD _____ KILOGRAMS _____ AT

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kPa COLD”.

- (b) Tyres rated for both single and dual loads:

“MAXIMUM LOAD SINGLE _____ KILOGRAM AT kPa COLD”

“MAXIMUM LOAD. DUAL _____ KILOGRAMS AT _____ kPa COLD”.

- (c) A load index symbol(s) as shown in **Table 5**, adjacent to the size designation as part of the service description.
- (5) Identification of the manufacturer by either name or brand name;
- (6) The word “TUBELESS” if applicable;
- (7) The word “RADIAL” if applicable;
- (8) The word “REGROOVABLE” or the symbol “PT”, or the international Regroovable symbol not smaller than 20 mm in a diameter, on tyres designed for regrooving. The international symbol for a regroovable tyre is shown in **Appendix A**;
- (9) A.U.S.D.O.T/E.U code, specifying date, year of manufacture and country of manufacture.

Note: Where applicable, internationally accepted symbols corresponding to or having the same meaning as any of the above requirements may be used.

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Example:

A tyre having:

- (1) A size and construction of:
 - nominal section width 275 mm;
 - nominal aspect ratio 70%;
 - radial construction;
 - nominal rim diameter code 22.5.
- (2) Service condition characteristics:
 - single load 2500kg
 - dual load 2300 kg
 - reference speed 130 km/h
- (3) Other service characteristics:
 - tubeless
 - special thread

shall be marked.

275/70 R 22.5

140/137 M

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- 10.1.1** On at least one sidewall, the information shall be positioned in an area between the maximum section width and bead of the tyre. However, in no case shall the information be positioned on the tyre so that it is obstructed by the flange of any rim designated for use with that tyre in this standard.
- 10.1.2** The location of the marking of the load and speed characteristics shall be distinct but in the vicinity of the marking of dimensional and constructional characteristics.
- 10.1.3** No location is specified for the marking related to other service characteristics.
- 10.1.4** The maximum inflation pressure of a tyre shall be permanently moulded into or on both sidewalls, in numerals not less than 12.0 mm high.

Table 1

Plunger diameter

Load index in single formation	Plunger diameter \pm 0.5 mm
≤ 121	19
122 – 134	32
≤ 135	38

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Table 2

Minimum breaking energy

Inflation pressure corresponding to maximum load rating		Breaking energy min	
KPa		J	
(a) Tyres with load index (single) ≤ 121			
	Nominal rim diameter code < 13	Nominal diameter code > 13	
up to 250	136	294	
251 to 350	203	362	
351 to 450	271	514	
451 to 550	-	576	
551 to 650	-	644	
over 650	-	712	
(b) Tyres with load index (single) ≥ 122			
up to 550	972		
551 to 650	1412		
651 to 750	1695		
751 to 850	2090		
851 to 950	2203		

Table 3

Endurance test parameters

Speed symbol	Test drum speed ¹ r/minute		Load as percentage of maximum load rating		
	Radial tyres	Diagonal tyres	Duration		
			7 h (period 1)	16 h (period 2)	24 h (period 3)

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(a)Tyres with load index (single) ≤ 121					
F	100	100			
G	125	125	66	84	101
J	150	150			
K	175	175			
L	200	175	70	88	106
M	250	200			
N	275	-	75 ²	97 ²	114
P	300	-			
(b)Tyres with load index (single) ≥ 122					
F	100	100			
G	125	100			
J	150	125	66	84	101
K	175	150			
L	200	-			
M	225	-			
¹ Special tread tyres shall be tested at a speed equal to 85% of the speed prescribed for equivalent normal tyres.					
² The load application times for periods 1 and 2 are 4 h and 6 h respectively.					

Table 4

Nominal rim diameter code

Code		Nominal rim diameter, dr, mm
5° tapered rims		15° tapered (drop-centre) rims
10	-	254
12	-	305
13	-	330
14	-	356
-	14.5	368
15	-	381
16	-	406
17	-	432

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Code		Nominal rim diameter, dr, mm
5° tapered rims		15° tapered (drop-centre) rims
-	17.5	445
18	-	457
-	19.5	495
20	-	508
-	20.5	521
22	-	559
-	22.5	572
24	-	610
-	24.5	622

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Table 5
Correlation between load index and tyre load – carrying capacity (TLCC)

Load Index (U)	TLCC kg	Load Index (U)	TLCC kg	Load Index (U)	TLCC kg	Load Index (U)	TLCC kg	Load Index (U)	TLCC kg	Load Index (U)	TLCC kg	Load Index (U)	TLCC kg	Load Index (U)	TLCC kg
0	46	40	140	80	450	120	1 400	160	4 500	200	14 000	240	45 000		
1	46.2	41	145	81	462	121	1 450	161	4 625	201	14 500	241	46 250		
2	47.5	42	150	82	475	122	1 500	162	4 750	202	15 000	242	47 750		
3	48.7	43	155	83	487	123	1 550	163	4 875	203	15 500	243	48 750		
4	50	44	160	84	500	124	1 600	164	5 000	204	16 000	244	50 000		
5	51.5	45	165	85	515	125	1 650	165	5 150	205	16 500	245	51 500		
6	53	46	170	86	530	126	1 700	166	5 300	206	17 000	246	53 000		
7	54.5	47	175	87	545	127	1 750	167	5 450	207	17 500	247	54 500		
8	56	48	180	88	560	128	1 800	168	5 600	208	18 000	248	56 000		
9	58	49	185	89	580	129	1 850	169	5 800	209	18 500	249	58 000		
10	60	50	190	90	600	130	1 900	170	6 000	210	19 000	250	60 000		
11	61.5	51	195	91	615	131	1 950	171	6 150	211	19 500	251	61 500		
12	63	52	200	92	630	132	2 000	172	6 300	212	20 000	252	63 000		
13	65	53	206	93	650	133	2 060	173	6 500	213	20 600	253	65 000		
14	67	54	212	94	670	134	2 120	174	6 700	214	21 200	254	67 000		
15	69	55	218	95	690	135	2 180	175	6 900	215	21 800	255	69 000		
16	71	56	224	96	710	136	2 240	176	7 100	216	22 400	256	71 000		
17	73	57	230	97	730	137	2 300	177	7 300	217	23 000	257	73 000		
18	75	58	236	98	750	138	2 360	178	7 500	218	23 600	258	75 000		
19	77.5	59	243	99	775	139	2 430	179	7 550	219	24 300	259	77 500		

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20	80	60	250	100	800	140	2 500	180	8 000	220	25 000	260	80 000
21	82.5	61	257	101	825	141	2 575	181	8 250	221	25 750	261	83 500
22	85	62	265	102	250	142	2 650	182	8 500	222	26 500	262	85 000
23	87.5	63	272	103	275	143	2 725	183	8 750	223	27 250	263	87 000
24	90	64	280	104	900	144	2 800	184	9 000	224	28 000	264	90 000
25	92.5	65	290	105	925	145	1 900	185	9 250	225	29 000	265	92 500
26	95	66	300	106	950	146	3 000	186	9 500	226	30 000	266	95 000
27	97.5	67	307	107	975	147	3 075	187	9 750	227	30 750	267	97 500
28	100	68	315	108	1 000	148	3 150	188	10 000	228	31 500	268	100 000
29	103	69	325	109	1 030	149	3 250	189	10 300	229	32 500	269	103 000
30	106	70	335	110	1 060	150	3 350	190	10 600	230	33 500	270	106 000
31	109	71	345	111	1 090	151	3 450	191	10 900	231	34 500	271	109 000
32	112	72	355	112	1 120	152	3 550	192	11 200	232	35 500	272	112 000
33	115	73	365	113	1 150	153	3 650	193	11 500	233	36 500	273	115 000
34	118	74	376	114	1 180	154	3 750	194	11 800	234	37 500	274	118 000
35	121	75	387	115	1 215	155	3 875	195	12 150	235	38 750	275	121 000
36	125	76	400	116	1 250	156	4 000	196	12 500	236	40 000	276	125 000
37	128	77	412	117	1 285	157	4 125	197	12 850	237	41 250	277	128 500
38	132	78	425	118	1 320	158	4 250	198	13 200	238	42 500	278	132 000
39	136	79	437	119	1 360	159	4 375	199	13 600	239	43 750	279	136 000

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Table 6

Correlation between speed symbol and speed category

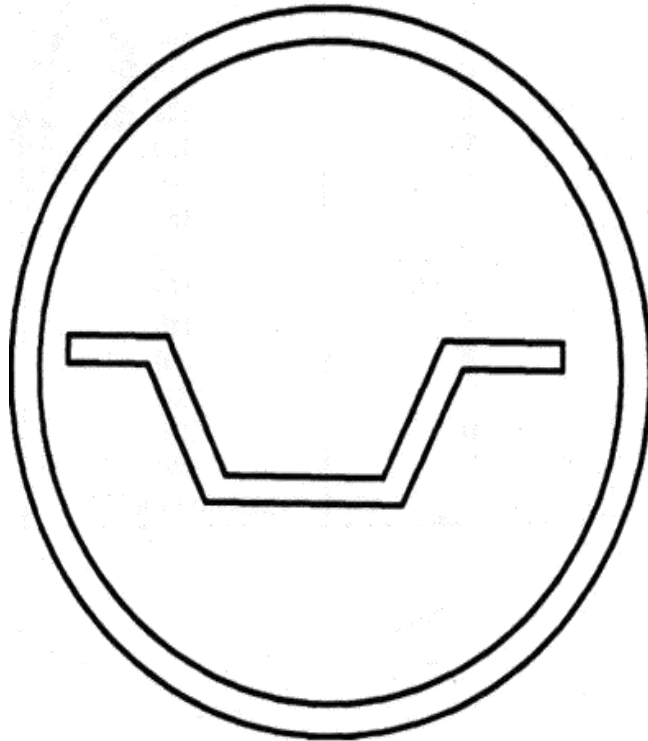
Speed Symbol	Speed category (km/h)
B	50
C	60
D	65
E	70
F	80
G	90
J	100
K	110
L	120
M	130
N	140
P	150
Q	160
R	170
S	180
T	190
U	200
H	210
V	240
Z	greater than 240

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Appendix A

The international symbol for a regroovable tyre



**Appendix B
(Informative)**

Test conditions for tyres with non-standard marking

For tyres not marked with a load index, but with a "load range" or equivalent ply rating "PR", marking **Tables 7, 8 and 9** apply in place of **Tables 1, 2 and 3** as appropriate.

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Table 7

Plunger diameter

Tyre type	Plunger diameter ± 0.5 mm
Tyres marked "LT"; Tyres with rim diameter code ≤12; Tyres with rim diameter code ≤17.5; and marked "Tubeless"	19
Other than above:	
-Tyres marked Load range F (or 12 PR) and below.	32
-Tyres marked Load range G (or 14 PR) and over.	38

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Table 8

Minimum breaking energy

Load range	PR	Breaking energy (min.) J				
		Rim diameter code ≤12	Rim diameter code 13 and 14.	Other tyres marked "LT".	Other tyres	
					Tube type marked "LT"	Tubeless with rim diameter code 13 to 17.5 inclusive
A	2	68	-	226	-	-
B	4	136	192	294	-	-
C	6	203	271	362	768	576
D	8	271	384	514	893	734
E	10	339	-	576	1412	972
F	12	407	-	644	1785	1412
G	14	-	-	712	2282	1695
H	16	-	-	768	2599	2090
J	18	-	-	-	2825	2203
L	20	-	-	-	3051	-
M	22	-	-	-	3220	-
N	24	-	-	-	3390	-

Note: For rayon cord tyres, the applicable energy values are 60 percent of those shown in table.

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Table 9

Endurance test

Marking of speed restricted service	Load range	PR	Test drum speed r/minute	Percentage of maximum load rating		
				Duration		
				7 h (period 1)	16 h (period 2)	24 h (period 3)
50 mile/h	all	all	125	66	84	101
50 mile/h	C,D	6,8	150	75	97	114
	E to L	10 to 20	100	66	84	101
	all	all	75	66	84	101
35 mile/h						
(No markings)	A to D	2 to 8	250	75 ¹⁾	97 ²⁾	114
	E	10	200	70	88	106
	F	12	200	66	84	101
	G	14	175	66	84	101
	H to N	16 to 24	150	66	84	101
1. 4 h for tyres with rim diameter code 14.5 or less.						
2. 6 h for tyres with rim diameter code 14.5 or less.						

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Guyana National Bureau of Standards
(Compulsory Standard Specifications) Order

O. 41 of 2003

**GUYANA NATIONAL BUREAU OF STANDARDS
(COMPULSORY STANDARD SPECIFICATIONS)
ORDER**

made under section 20

Citation.

1. This Order may be cited as the Guyana National Bureau of Standards (Compulsory Standard Specifications) Order 2003.

Standard specification declared compulsory.

2. The standard specifications specified in the First, Second and Third Schedules are hereby declared compulsory.

FIRST SCHEDULE

GYS 9 -16 :2003

**Specification
for
labelling of commodities -
Part 16: Labelling of textiles**

1 Scope

This standard specifies the requirements for labelling and advertising of textiles and certain consumer textiles products. It applies to:

- (a) labels which are to be sold with textiles at retail or wholesale outlets, and descriptions of textiles used in advertisements;

- (b) all household textile articles, such as draperies, floor coverings, furnishings, beddings, accessories to the foregoing and other textile goods of a type customarily used in institutions and households; and
- (c) textiles sold by length (including narrow fabrics), to articles used for stuffing, filling or padding, to threads and cordage.

It does not apply to the labelling of garments, hair pieces, and all other items of wearing apparel, costumes and accessories.

2 Definitions

For the purpose of this standard the following definitions shall apply:

2.1 backing: The structure on which the pile, face or surface of a pile, fabric or floor covering is fixed by weaving, hooking, tufting, knitting or otherwise

2.2 consumer textile:

- (a) any textile, fibre yarn or fabric; or
- (b) any product, other than a garment, made in whole or in part from a textile fibre, yarn or fabric that is in the form in which it is to be sold to any person for consumption or use other than consumption or use in the

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manufacturing, processing or finishing of any product for sale.

- 2.3 **fibre:** A substance having a high length-width ratio. It is the basic unit of textile fabric.
- 2.4 **findings:** Any textile product which may be used on garments or other consumer textile products for a functional or decorative purpose, inside, or on the edge of the consumer textile product, and includes belting, binding, tape, stiffening, facing, inter-facing, garters, leg and wrist bands, waist bands, pocketing and padding under floor coverings.
- 2.5 **first quality:** Textiles which are free from imperfections.
- 2.6 **irregulars:** Textiles which have imperceptible defects, for example, uneven yarn, lower count than the required minimum.
- 2.7 **label:** A legend, mark or device attached to, included in, or accompanying a consumer textile product.
- 2.8 **manufacturer:** One who manufactures, produces, prepares, packages or pre-packages any goods for retail or the person who sells any goods under a trade name controlled by him.
- 2.9 **narrow fabric:** A textile which is less than 300 mm in width and which is ordinarily used as trimming or findings.
- 2.10 **pile fabric:** A textile on which raised loops, cut interlacings of double cloths or tufts (cut loops) and other erect yarns or fibres deliberately produced on the cloth, form part of all the surface of the fabric.

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- 2.11 seconds:** Textiles in which there are readily perceptible imperfections, for example, tears, mends, broken yarns, uneven count, etc.
- 2.12 textile:** Any type of woven, knitted, or felted fabric.
- 2.13 trimming:** Any textile fibre product that may be used on a consumer textile product for a decorative purpose.

3 Labelling requirements

- 3.1** The labelling shall be done in accordance with **GYS 9-1:1994, "Specification for labelling of commodities - Part 1: General principles"** and shall include statements giving information as follows:

(a) composition:

- (i) fibre content, given in percentages, in descending order of quantity;
- (ii) fibre content of less than five percent shall be classified as other fibres; and
- (iii) fibres used for lettering labels woven into the selvedge, or for symbols or signs indicating brand or manufacturer shall not be included in the composition listing, the words "exclusive of ornamentation" shall be printed at the end of the

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composition table if the fibres used are not the same as those used in the body of the cloth.

- (b) name and address of the manufacturer, including country of origin;
- (c) width of textile in centimetres;
- (d) any finishing treatments; and
- (e) quality designation, "irregular" where applicable.

3.2 Statements containing the following additional information shall be included on the label:

- (a) mass of the cloth in grams per square metre;
- (b) suggested end use;
- (c) first quality; and
- (d) the brand name of the manufacturer.

3.3 All information required by 3.1 and 3.2 except 3.2 (d) shall be clearly and prominently displayed, easily legible, in type of equal size and prominence grouped together and set apart from the graphic matter on the label.

3.4 Where the textile is sold by length from a bolt or roll the label shall:

- (a) be displayed to the purchaser on the end of any spool or bolt case on which

the textile is displayed for sale;

- (b) be woven or printed into the selvedge at distances not exceeding 90 cm apart; or
- (c) be displayed, in the case of narrow fabrics, as a sign in the immediate vicinity of, or on the fabric, at the point of display.

3.5 Where the textile is pre-cut or pre-packaged as to length, the label shall be applied to each piece or on each package and shall include in addition to the requirements of **3.1**, a statement of the length of the material in metric units.

4 Advertising requirements

4.1 Any representation to the general public by printed, spoken, pictorial, radio and written, or television advertising concerning the fibre content of a textile shall:

- (a) state the fibres present in the textile in descending order of proportion, with or without the percentage of each present; and
- (b) state the country of origin by name, if imported into Guyana.

4.2 In any written or pictorial advertisement concerning the fibre content of a textile the statements required by **4.1** shall be in type of equal size and of the same colour and prominence

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5 Amount of fibre content of a textile

- 5.1 The amount of any fibre in a textile shall be determined by the methods indicated as acceptable.
- 5.2 The percentage of a fibre in a textile shall be calculated on the total fibre content of the textile, exclusive of ornamentation.
- 5.3 In a pile fabric textile where the backing is of a different textile to that in the surface covering, the percentage of each fibre in the covering shall be calculated separately from the percentage of each fibre in the backing.
- 5.4 In the case of a floor covering with a backing, the fibre content of the textile surface covering is to be calculated as the amount of surface covering present.
- 5.5 Fibre contents of less than five percent shall be classified as other fibres.
- 5.6 When a sample of a textile is tested, it shall be deemed to comply with the requirements of this standard if the percentage found of each fibre in the textile does not differ from the declared percentage by more than 5 percent, and if the order of descending fibre contents of each fibre is found to be the same as that declared on the label.

6 Wording on labels

- 6.1 Where reference is made to one fibre only, unqualified by any quantitative term, it shall indicate that the cloth so described is manufactured wholly from that fibre.

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- 6.2 The term “all X”, or “pure X” or “100% X”, where “X” is the generic name of a fibre shall be used on a label or in advertising if no other fibre is present in the article labelled or advertised.
- 6.3 The term “virgin” or “new” shall be used on textile articles containing no reclaimed fibre.
- 6.4 The terms “hand-knitted”, “hand-crafted”, “hand-framed”, “hand-spun”, “hand-woven” shall be used on labels or in advertising of textiles that have been knitted, spun, or woven, in whole or in part, on machines manually or pedally operated.
- 6.5 The term “hand-printed” shall be used on labels, or in advertisements for textile that have been printed by manually-operated screens, stencils or blocks.
- 6.6 The term “hair”, “fur”, “wool” or any other term relating to the hair, fur or wool of animal shall be used on labels, or in advertisements for textiles simulating such animal products but not containing such hair, fur or wool if they are used with a word such as “synthetic”, or “imitation”, in immediate proximity, printed in type of the same size, colour and design as the type used for the term hair, fur, or wool.

7 Compliance

- 7.1 An applicant shall submit labels, drafts of labels or draft advertising texts to the Guyana National Bureau of Standards for advice as to whether the labels, drafts of labels or draft advertising texts comply with the provisions of this standard.

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SECOND SCHEDULE**GYS 9-15:2003**

**Specification
for the labelling of commodities -
Part 12: labelling of garments**

1 Scope

This standard specifies the requirements for the labelling of garments sold in Guyana whether locally made or imported. It applies to labels and descriptions to be used on garments classified as follows: shirts; t-shirts; jerseys; blouses; skirts; pants; short-pants; school uniforms; swimwear; dresses and all other garments.

2 Definitions

For the purpose of this standard the following definitions shall apply:

- 2.1 competent authority:** The Guyana National Bureau of Standards.
- 2.2 fibre (sometimes called a filament):** An individual, slender strand of narrow diameter which is the basic unit of a textile fabric.
- 2.3 fibre content:** The amount and type of fibre in a garment.
- 2.4 garments:** Articles of dress and articles (usually of textiles) designed to cover, protect or adorn the body.

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- 2.5 **irregular:** Textiles which have imperceptible defects, for example, uneven yarn, lower count than the required minimum.
- 2.6 **label:** Any mark, symbol, device, imprint, stamp, brand, ticket or tag, applied to, placed on, accompanying, sold with, distributed with or referring to any goods.
- 2.7 **manufacturer:** One who manufactures, produces, processes, prepares, packages or pre-packages any goods for retail or the person who sells any goods under a trade name controlled by him.
- 2.8 **reclaimed fibre:** Fibre which may be re-processed or otherwise re-formulated.
- 2.9 **retailer:** One who sells goods in small quantities, numbers or parcels directly to the consumer.
- 2.10 **sell:** Offer for sale, expose for sale, have in possession for sale, and display in such a manner as to lead to a reasonable belief that the product so displayed is intended for sale.
- 2.11 **textile:** A product made from fibres by braiding, bonding, crocheting, felting, knitting, knotting, laminating or weaving.
- 2.12 **wholesaler:** One who sells goods in relatively large quantities.

3 Labelling requirements

- 3.1 Labelling shall be done in accordance with GYS 9-1:1994, "Specification for labelling of commodities -

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Part 1: General principles “ and shall include the following:

- (a) composition:
 - (i) fibre content, given in percentages, in descending order of quantity;
 - (ii) fibre content of less than 5% shall be classified as other fibres;
 - (iii) fibres used for lettering labels woven into the selvedge, or for symbols or signs indicating brand or manufacturer shall not be included in the composition listing, the words “exclusive of ornamentation” shall be printed at the end of the composition table if the fibres used are not the same as those used in the body of the cloth.
- (b) the name and address of the manufacturer or his trade mark or brand name registered with the competent authority;
- (c) the country of origin;
- (d) the appropriate garment size;
- (e) quality designation, “irregular” where applicable; and
- (f) care information for proper

maintenance of the garments.

- 3.2 All information required shall be clearly and prominently displayed, easily legible, grouped together and set apart from the graphic matter on the label, and where appropriate, measurements shall be in metric units.
- 3.3 The label shall be constructed and marked so that the information shall be legible after 10 launderings or washings. The label shall be so fixed to the garment that it remains attached to the garment during a similar treatment.

4 Fibre content of a garment

- 4.1 The percentage of any fibre in a garment shall be calculated on the total fibre content of the product.
- 4.2 When a garment is tested, it shall be deemed to comply with the requirements of this standard if the percentages of each fibre found in the garment do not differ from the declared percentages by more than 5%, or if the descending order of fibre content is found to be the same as the order declared on the label.

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THIRD SCHEDULE

GYS 9-4: 2003

Specification for

Labelling of commodities - Part 4: Labelling of footwear

1 Scope

This standard specifies the labelling requirements of all footwear.

This standard shall be read in conjunction with **GYS 9-1:1994, "Specification for labelling of commodities - Part 1: General principles"**.

2 Definitions

For the purpose of this standard, the following definitions shall apply:

- 2.1 average foot:** A normal foot defined from the examination of statistical results and anatomical studies.
- 2.2 footwear:** Shoes, boots, sandals, slippers and safety boots and shoes.
- 2.3 identification number:** The number assigned to a manufacturer by the Guyana National Bureau of Standards. This number may be used in lieu of the manufacturer's name and address on the footwear. This number does not imply any approval or recognition of the footwear by the Guyana National

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Bureau of Standards. It serves only to facilitate communication with its manufacture(s) and will be considered in the same context as the manufacturer's name and address.

2.4 length of the foot: The horizontal distance between the perpendiculars in contact with the end of the most prominent toe and the most prominent part of the heel measured with the subject standing (the weight of the body equally distributed on both feet) and wearing hose appropriate to the type of boot or shoe (See Figure 1).

2.5 mondopoint: The size of a shoe expressed in millimetres based on the size of foot it is intended to fit.

The mondopoint size marking using S1 units will comprise two numbers, for example, 240/95. The first number is the size; it is an indication of the length of the foot fitted by the shoe, measured in millimetres, the second number is the width index; it is an indication of the joint girth of the foot fitted, expressed as a percentage of its length.

Three millimetres shall be added to the measured length of a child's foot in order to arrive at the correct mondopoint size. This is a growth allowance; it is logical that growing foot which measures, say, 240 mm at the time of purchase ought to have a larger shoe than an adult foot which measures 240 mm.

2.6 size of the shoe: The measurements of a foot deemed to be sufficient to provide a shoe that will fit a foot corresponding to that of those measurements.

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2.7 width of the foot: The horizontal distance between vertical lines in contact with the first and fifth metatarsophalangeal joints (**See Figure 2**), under conditions identical with those previously used for measurement of length.

3 Labelling requirements

3.1 The label on each item of footwear shall include the following:

- (a) name and address of the manufacturer or supplier or his identification number or brand name or trade mark;
- (b) size of the item shall be stated in mondopoint;
- (c) country of origin of the manufactured item;
- (d) the materials from which the sole and the upper are made; (for example, leather, genuine leather, synthetic or man-made materials) (**See Appendix A**); and

3.1.1 Requirements at **3.1 (a), (b), and (c)** shall appear on the permanent label on the shoe; requirements at **(d)** shall appear on an attached tag.

3.2 The label shall be legible and durable up to the point of sale and shall not be false or deceptive. It shall be affixed or attached in such a manner as not to impair the quality of the shoe.

3.3 The label on the container in which footwear is sold shall include the following:

- (a) name and address of the manufacturer or supplier or the brand name or trade mark;
- (b) size of the item shall be stated in mondopoint;
- (c) the materials from which the sole and the upper are made; (for example, leather, genuine leather, synthetic or man-made materials); and
- (d) colour.

3.4 It is the responsibility of any person who sells or distributes footwear to ensure that it is labelled in accordance with the requirements of this standard.

4 Sizing system

4.1 The sizing system shall be based on the length of the average foot fitted by the footwear.

Note: The sizing system may also include the width of the foot.

4.2 Each measurement shall be expressed in a whole number of millimetres.

Note: This requirement does not preclude the use of codes as an additional means of expressing width.

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5 Size marking and labelling

5.1 The size marking shall be expressed as specified in 4.1 or 4.2, using characters which shall be at least 3 mm in height.

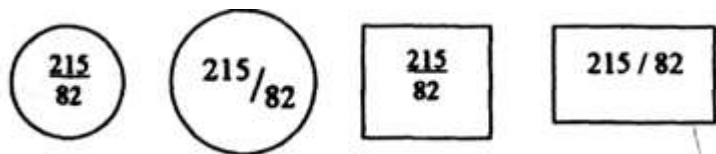
5.2 Length of measurement only

5.2.1 The length measurement shall be marked on the footwear.

5.3 Length and width measurements

5.3.1 The length measurement shall be stated first, following by the width measurement and the two numbers shall be separated by a solidus or other line.

Note: The numbers shall be enclosed in a rectangular or oval figure for clarity and ease of recognition, for example 215/82.



6 Transition from existing systems

6.1 Any existing system of footwear sizing, other than the monodpoint system, shall be adapted to the monodpoint system by conversion length (expressed in millimetres of the average foot fitted). Each size shall also include a designation of the width in

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millimetres or by means of a code.

7 **Conformity**

7.1 To conform to this standard, the labelling shall comply with 3.1 and 3.2.

8 **Approval of labels**

8.1 Labels may be submitted to the Guyana National Bureau of Standards at the design stage, for approval.

Figure 1
Length of foot

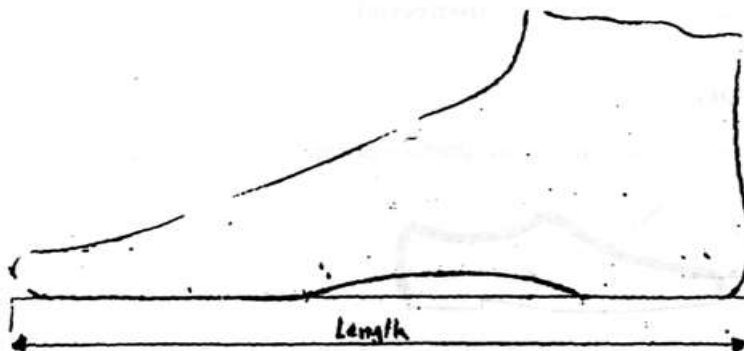
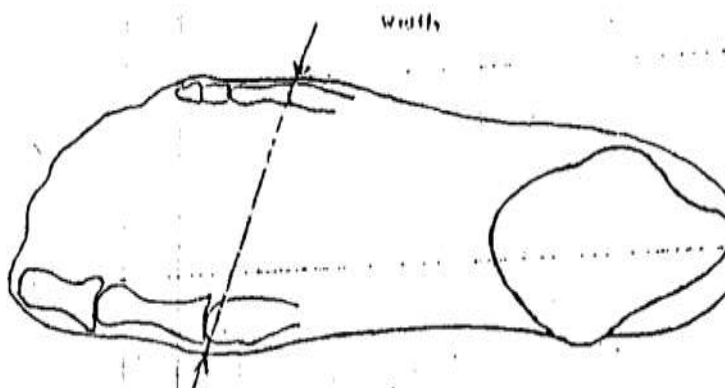


Figure 2
Width of foot

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Appendix A

Pictograms and written indications concerning parts of a footwear to be inspected

A-1.0 Upper

This is the outer face of the structural element which is attached to the outer sole.



A-2.0 Lining and sock

These are lining of the upper and the insole, constituting the inside of the footwear article.

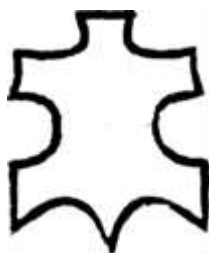


A-3.0 Outer sole

This is the bottom part of the footwear article which is subjected to abrasive wear and attached to the upper.



A-4.0 Leather



A-5.0 Coated leather

Leather where the surface coating applied to the leather does not exceed one third of the total thickness of the product, but is in excess of 0.15 mm.

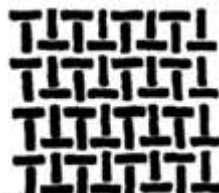
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A-6.0 Textile

Natural textile materials and synthetic or non-woven textile materials.



A-7.0 All other materials

