

**DRAFT BELIZE CODE OF PRACTICE FOR
STORAGE OF TYRES, INNER TUBES AND FLAPS**

Committee Representation

The preparation of this standard for the Standards Advisory Council established under the Standards Act 1992 was carried out under the supervision of the Bureau's Technical Committee for Tyres, which at the time comprised the following members:

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**DRAFT BELIZE CODE OF PRACTICE FOR
STORAGE OF TYRES, INNER TUBES AND FLAPS**

0 FOREWORD

- 0.1 Rubber products in general can deteriorate during storage and in extreme circumstances could become unserviceable. Deterioration can be caused by such factors as deformation of the article or by the action of ozone, light, heat or humidity. It is important, therefore, to minimize these effects by taking appropriate precautions during storage in order that tyres, tubes and flaps are maintained in good condition.
- 0.2 In preparing this standard assistance was derived from:
- a) Saint Lucia Code of Practice (SLCP 9: 2006) - Code of Practice for the Storage of Tyres Inner Tubes and Flaps

1 SCOPE

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

2 STORAGE

Tyres shall be stored inside a building to protect tyres, tubes and flaps from humidity, light, temperature (heat), ozone and chemicals. Tyres shall not be stored in a manner which could cause deformation.

3 STORAGE CONDITIONS

3.1 Humidity

- a) The store room shall be dry and partially ventilated.
- b) Moist conditions shall be avoided as tyres can absorb moisture-causing degradation of the structure with a risk of subsequent failure in service.

3.2 Light

- a) Tyres shall not be stored in direct sunlight and shall be protected from artificial light having a high ultraviolet content.
- b) Lighting with filament type lamps shall be used in preference to florescent tubes.
- c) Daylight shall be reduced by tinting glass windows with a red or orange coating or screen to absorb ultraviolet light.

3.3 Temperature

Tyres shall not be stored at temperatures 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 surface, e.g. radiators, hot pipes, etc.

3.4 Ozone

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

3.5 Chemicals and Lubricants

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

3.6 Stock Rotation

- a) A first-in, first-out policy shall be adopted to minimize the storage period and hence any deterioration of products before use.
- b) Tyres that have been in storage for more than six (6) years from the date of manufacture or rethreading shall not be put in service without reference to the tyre manufacturer or rethreaded, as appropriate.

3.7 Storage position

Vertical, horizontal or plaited (laced) method shall be used to store tyres to prevent deformation.

a) Horizontal Storage

Horizontal storage of tyres shall be stacked with the maximum number of ten (10) tyres (see Annex A, Figure 1). The stacking order shall be rotated at least every six (6) months. Heavy lug tyres, e.g. agriculture tractor tyres, stored horizontally should be positioned with the tread lugs coinciding, to avoid sidewall deformation.

b) Vertical Storage

Vertical storage of tyres shall be in pallets, particularly for long-term storage (see Annex A, Figure 2). Tyres stored by this method shall be turned through at least 10° at intervals of not more than six (6) months.

c) Plaited or Laced Storage

Plaited or laced storage can be used for large amounts of tyres. Tyres shall not be stacked more than 2.4 m (8 feet) high and shall be rotated at least every three (3) months (see Annex A, Figure 3).

4 INNER TUBES AND FLAPS

- a) Tubes, which are packed in cartons or bags, shall be left in these to provide some protection against contamination, ozone and light. If tubes are loose they shall be stacked on flat unslotted shelves or pallets so that the valves are not deformed and do not damage neighbouring tubes.
- b) Flaps shall be stored on flat, unslotted shelves or pallets.
- c) Tubes and flaps shall not be hung as this can cause stretching.

Appendix A: Tyres Storage Positions



Figure 1 - Horizontal Storage



Figure 2 - Vertical Storage



Figure 3 - Plait or Laced Storage

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