

BELIZE NATIONAL STANDARD

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BELIZE NATIONAL STANDARD CODE OF PRACTICE FOR THE STORAGE OF TYRES, INNER TUBES AND FLAPS

BBS
BELIZE BUREAU OF STANDARDS
#53 REGENT STREET
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CENTRAL AMERICA

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BELIZE NATIONAL STANDARD
CODE OF PRACTICE FOR THE 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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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 TTS 432: 1993 - CODE OF PRACTICE FOR THE STORAGE OF TYRES, INNER TUBES AND FLAPS, Trinidad and Tobago Bureau of Standards.

1 SCOPE

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

2 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 STORAGE CONDITIONS

3.1 Humidity

- 3.1.1 The storeroom should be dry and moderately ventilated. Moist conditions should be avoided as tyres can 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. Lighting with filament type lamps should be used in preference to florescent tubes and daylight should be reduced by tinting glass windows with a red or orange coating or screen to absorb ultraviolet light.

3.3 Temperature

- 3.3.1 Tyres should 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

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 mercury vapour lamps and high-voltage electrical equipment giving rise to electric sparks or silent electrical discharges. Combustion gases and organic vapour should be excluded from storage rooms, as they may give rise to ozone via photochemical processes.

3.5 Chemicals and Lubricants

3.5.1 Solvents such as petrol and paraffin, oil, grease, acids 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.

3.6 Stock Rotation

3.6.1 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 rethreading should not be put in service without reference to the tyre manufacturer or rethreaded, as appropriate.

3.7 Deformation

3.7.1 Tyres should not be stored in a manner, which could cause permanent deformation (see 3.8 and 3.9).

3.8 Vertical Storage

3.8.1 It is recommended that vertical storage of tyres in pallets should be used, particularly for long-term storage (see Figure 1 on page no. 7). Tyres stored by this method should be turned through at least 10° at intervals of not more than 6 months.

3.9 Horizontal Storage

3.9.1 Horizontal storage (see Figure 2 on page no. 7) 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. agriculture tractor tyres, stored horizontally should be positioned with the tread lugs coinciding, to avoid sidewall deformation.

4 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.

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 3.8.1)

VERTICAL STORAGE

FIGURE 2
(Refer to 3.9.1)

HORIZONTAL STORAGE