



# INVITATION FOR PUBLIC COMMENTS ON DRAFT BOTSWANA STANDARDS

*Standards for a better Botswana*

Botswana Bureau of Standards intends to adopt the following international standards as Botswana Standards:

**1. EN 167:2002, Personal eye protection – Optical test methods**

This International Standard specifies optical test methods for eye-protectors, the requirements for which are contained in other International Standards. Alternative methods may be used if shown to be equivalent. Non-optical test methods are given in EN 168, Specifications are given in EN 166 and definition of terms is given in EN 165.

**2. EN 168:2002, Personal eye protection – Non-optical test methods**

This International Standard specifies non-optical test methods for eye-protectors, the requirements for which are contained in other International Standards. Alternative test methods may be used if shown to be equivalent. The optical test methods are given in EN 167 and definition of terms is given in EN 165.

**3. EN 172:1994 + A1:2000 + A2:2001, Personal eye protection – Sunglare filters for industrial use**

This International Standard specifies the scale numbers, transmittances and related requirements for Sunglare filters for industrial use. Other valid requirements for these types of filters are specified in EN 166.

Selection criteria and information on use of these filters are given in Annex A. This standard does not apply to filters for protection against radiation from artificial light sources such as those used in solarium. EN 170 applies for these filters.

This standard does not apply to ski goggles and sunglasses as well as sunglare filters for general use.

**4. EN 208:2009, Personal eye protection – Eye protectors for adjustment work on lasers and laser systems (laser adjustment eye-protectors)**

This International Standard applies to laser adjustment filters and eye-protectors. These are filters and eye-protectors for use in adjustment work on lasers and laser systems as defined in EN 60825-1:2007 where hazardous radiation occurs in the visible spectral range of 400 nm to 700 nm. Filters specified in this International Standard reduce this radiation to values defined for lasers of Class 2 ( $\leq 1$  mW for CW (continuous wave) lasers).

This International Standard defines the requirements, test methods and marking. A guide is given in Annex B with regard to selection and use.

**5. EN 471:2003 + A1:2007, High-visibility warning clothing for professional use – Test methods and requirements**

This International Standard specifies requirements for protective clothing capable of signaling the user's presence visually, intended to provide conspicuity of the user in hazardous situations under any light conditions by day and under illumination by vehicle headlights in the dark.

Performance requirements are included for colour and retro-reflection as well as for the minimum areas and for the disposition of the materials in protective clothing.

**6. EN 1731:2009 + A1:2007, Personal eye protection – Mesh eye and face protectors**

This International Standard specifies materials, design, performance requirements, test methods and marking requirements for mesh eye and face protectors.

This standard is not applicable to eye and face protectors for use against liquid splash (including molten metal), hot solid risks, electrical hazards, infrared and ultra violet radiation.

Mesh eye and face protectors for use in sports such as ice hockey and fencing are excluded.

**7. BOS ISO 7203-1 (2<sup>nd</sup> Edition) Fire extinguishing media foam concentrates Part 1: Specification for low expansion foam concentrates for top application to water-immiscible liquids**

This standard specifies the essential properties and performance of liquid foam concentrates used to make foams for the control, extinction and inhibition of re-ignition of fires of water-immiscible liquids. Minimum performance on certain test fires is specified.

**8. BOS ISO 7203-2 (2<sup>nd</sup> Edition) Fire extinguishing media foam concentrates Part 2: Specification for medium and high expansion foam concentrates for top application to water-immiscible liquids**

This standard specifies the essential properties and performance of liquid foam concentrates used to make foams for the control, extinction and inhibition of re-ignition of fires of water-immiscible liquids. Minimum performance on certain test fires is specified.

**9. BOS ISO 7203-3 (2<sup>nd</sup> Edition) Fire extinguishing media foam concentrates Part 3: Specification for low expansion foam concentrates for top application to water-miscible liquids**

This standard specifies the essential properties and performance of liquid foam concentrates used to make foams for the control, extinction and inhibition of re-ignition of fires of water-miscible liquids. Minimum performance on certain test fires is specified.

**10. ISO 5667-13:1997, Water quality – Part 13: Guidance on sampling of sludges from sewage and water treatment works**

This part of ISO 5667 gives guidance on the sampling of sludges from wastewater treatment works, water treatment works and industrial processes. It is applicable to all types of sludge arising from these works and also to sludges of similar characteristics, for example septic tank sludges. Guidance is also given on the design of sampling programmes and techniques for the collection of samples.

Botswana Bureau of Standards also intends to adopt the following draft standards as Botswana Standards:

**1. PDS 93:2011, Waste water – Physical, microbial and chemical requirements – Specification**

This draft Botswana Standard specifies requirements for physical, microbiological and chemical limits for waste water discharged in to a sewer, a watercourse and open environments.

**2. PDS 529-2, Kgagagadi sand building units—Code of manufacture**

This draft standard gives guidance on the manufacturing of Kgagagadi sand masonry units for use in masonry walling.

**3. PDS 536-1, Basis of structural design and actions for buildings and industrial structures – Part 1: Basis of structural design**

This part of PDS 536 establishes principles and requirements for the safety, serviceability and durability of structures, describes the basis for their design and verification, and specifies minimum design values for actions and gives guidelines for related aspects of structural reliability in the structural design of buildings and industrial structures. It also covers the geotechnical actions directly relevant to buildings and industrial structures.

**4. PDS 536-2, Basis of structural design and actions for buildings and industrial structures – Part 2: Self weight and imposed loads**

This part of PDS 536 covers the design guidance and actions for the structural design of buildings. It includes the following:

- densities of construction materials and stored materials;
- self weight of construction works; and
- imposed loads for buildings.

**5. PDS 536-3, Basis of structural design and actions for buildings and industrial structures – Part 3: Wind actions**

This part of PDS 536 gives guidance on the determination of natural wind actions for the structural design of buildings and industrial structures including the entire structure, part of the structure, or elements attached to the structure.

This specification is intended to predict characteristic wind actions on land-based structures and includes the following:

- buildings and structures with an overall height of up to 100 m;
- elements of buildings and structures having a natural frequency greater than 5 Hz; and
- chimneys with circular cross-sections, with heights of less than 60 m and a height to diameter ratio of less than 6.5.

**6. PDS 536-5, Basis of structural design and action for buildings and industrial structures – Part 5: Basis for geotechnical design and actions**

This part of PDS 536 sets out the basis for geotechnical design and gives guidance on the determination of geotechnical actions on buildings and industrial structures including:

- vertical earth loading;
- earth pressure;
- ground water and free water pressure; and
- actions caused by ground movement.

**7. PDS 536-6, Basis of structural design and actions for buildings and industrial structures – Part 6: Actions induced by cranes and machinery**

This part of PDS 536 specifies imposed loads associated with overhead travelling bridge cranes on runaway beams at the same level as well as the actions induced by stationary machinery.

**8. PDS 536-8, Basis of structural design and actions for buildings and industrial structures – Part 8: Actions during execution**

This part of PDS 536 provides principles and general rules for the determination of actions to be taken into account during the execution of buildings and industrial structures.

It also gives rules for the determination of actions to be used for the design of auxiliary construction works needed for the execution of buildings and industrial structures.

**9. PDS 548 The application of energy efficiency requirements for buildings with artificial ventilation or air-conditioning**

This standard sets provisions for satisfying the requirements for the design and operation of buildings with artificial environmental control systems.

**10. PDS 498:2011 Ambient air quality – Limits for common air pollutants**

This draft Botswana Standard specifies limit values for common air pollutants to ensure that the negative effects of such pollutants on human health and the environment are prevented or reduced.

**11. PDS 523, Envelopes – Specification**

This standard covers envelopes for general correspondence, including types suitable for use with automatic mailing equipment.

**12. PDS 529-1, Kgagagadi sand building units—Specification**

This draft standard specifies requirements for Kgagagadi sand building units for use in masonry walling.

BOBS cordially invites interested parties to provide their views regarding the above mentioned standards by **25<sup>th</sup> January 2012**.

Copies of draft standards may be requested whereas copies of international standards may be viewed from the Information Centre of the Botswana Bureau of Standards at Plot No. 55745, Main Airport road, Block 8, Gaborone or Francistown branch at Plot No. 13393/4/5, Insurance House, Second Floor, Francistown.

Suggestions which entail revision of the text should indicate the preferred wording and the relevant clauses should be quoted against each comment.

Comments should be sent to: Alternatively, contact BOBS Francistown office at:

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