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DRAFT EAST AFRICAN STANDARD

Glass containers — Specification — Part 1 — Bottles for carbonated and non-carbonated drinks

EAST AFRICAN COMMUNITY

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Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in the East African Community. It is envisaged that through harmonized standardization, trade barriers that are encountered when goods and services are exchanged within the Community will be removed.

The Community has established an East African Standards Committee (EASC) mandated to develop and issue East African Standards (EAS). The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the public and private sector organizations in the community.

East African Standards are developed through Technical Committees that are representative of key stakeholders including government, academia, consumer groups, private sector and other interested parties. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the Principles and procedures for development of East African Standards.

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

The committee responsible for this document is Technical Committee EASC/TC 066, *Packaging*

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Glass containers—Specification — Part 1 — Bottles for carbonated and non-carbonated drinks

1 Scope

This Draft East African Standard specifies the requirements, methods of sampling and test for Glass bottles used for packaging of carbonated and non-carbonated drinks.

This standard does not cover glass containers used in pharmaceutical industry

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ASTM C224 – 78, *Standard Practice for sampling glass containers*

ISO 2859-1, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 1998 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at http://www.iso.org/obp.

3.1
filling level
the distance from the top of the neck finish to the centre of the meniscus measured on the centre line of the bottle

3.2
internal pressure resistance
the amount of internal pressure that the bottle can withstand without breaking

3.3
vacuity
the free space left above the liquid in a sealed container. It is expressed as a percentage of the nominal volume of the liquid

3.4
verticality
horizontal deviation of the centre of the bottle finish from a vertical line through the centre of the base

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3.5
thermal shock resistance
thermal shock measured in ºC which a container can withstand without breaking

4 Requirements

4.1 General requirements

4.1.1 The material for the manufacture of the lid shall be as agreed upon between the purchaser and the manufacturer.

4.1.2 The bottle and lid material shall not impart any flavor or toxic substances to the packaged drink.

4.1.3 The bottle and lid shall be fitted so as not to allow leakage or impact on the performance of the bottle.

4.1.4 The design of the bottle shall be as agreed upon between the purchaser and the manufacturer.

4.1.5 The bottles shall be free from manufacturing defects

Table 1 — Specific quality requirements for glass bottle

S/No.	Parameter	Requirement	Test method
a)	Capacity at filling level (fill point capacity)	As declared on the agreement	ISO 8106
b)	Brim fill capacity	As declared on the bottle	
c)	Minimum Internal pressure resistance a) Carbonated drinks b) Non-carbonated drinks	 10 bar sustained for 60 s 7 bar sustained for 60 s	ISO 7458
d)	Thermal shock resistance	bottle shall resist, without breakage, the thermal shock imposed by a fall in temperature of 42 ˚C	ISO 7459
e)	Verticality, mm, max.	6	ISO 9008

NOTE This deviation is equal to half the diameter of a circle described by the centre of the finish when the bottle rotates around the vertical axis through the centre of the base.

4.4 Design vacuity.

The design vacuity shall be not more than 3.5 %.

4.5 Bore dimensions

Bore dimensions shall be measured using a gauge that enters the neck vertically.

4.6 Closure integrity.

All sealing surfaces shall be essentially smooth and free from features that prevent adequate sealing.

4.7 Internal pressure resistance

When tested in accordance to ISO 7458 the minimum resistance to internal pressure of the bottles, shall be 16 bar sustained for 60s.

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NOTE 1 bar = 105 Pa. ,1 bar = 0.98 kg/cm2 ,1 bar = 14.5 lbf/in^2

4.8 Thermal shock resistance

When tested in accordance with ISO 7459 the bottles shall resist, without breakage, the thermal shock imposed by a fall in temperature of 42 °C.

5 Packaging and Labelling

5.1 Packaging

The bottles shall be suitably packed in a manner that prevents damage, contamination during normal handling, storage and transportation.

5.2 Labelling

5.2.1 Labelling on the bottle

All the bottles shall be embossed on the insweep with the following information.

a) Manufacturer's name and address /or registered trade mark;

b) cavity or mould number;

c) year of manufacture; and

d) Instruction for storage and disposal.

5.2.2 Labelling on bulk package

a) manufacturer's name /or registered trade mark;

b) batch number;

c) production date;

d) name of the product;

e) date of manufacture; and

6 Sampling.

Sampling shall be done in accordance with ASTM C224 – 78.

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Bibliography

[1] BS 6119-1 Glass bottles for carbonated soft drinks—Specification

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