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FINAL DRAFT EAST AFRICAN STANDARD

Toilet soap — Specification

EAST AFRICAN COMMUNITY

Foreword

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

In order to achieve this objective, the partner states in the Community through their National Bureaux of Standards, have established an East African Standards Committee.

The committee is composed of representatives of the National Standards Bodies in partner states, together with the representatives from the private sectors and consumer organizations. 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 procedures of the Community.

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.

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Introduction

This East African Standard has been prepared because of the need for standardizing the different types of toilet soaps being manufactured in the region. It is hoped that the standard will assist the production of toilet soaps of well defined types and thus ensure their quality to purchasers within the East African region. This East African Standard has been produced to guide manufacturers, importers and consumers on the quality of toilet soaps.

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Toilet soap -Specification

1 Scope

This East African Standard specifies requirements for toilet soap. It does not apply to carbolic soap or specialty soaps such as medicated soap, transparent soap, floating soap, liquid soap or sea-water soap.

2 Normative references

The following referenced documents are indispensable for the application 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.

ISO 457, *Analysis of soap — Determination of Chloride content — Titrimetric method*

ISO 456, *Surface active agents - Analysis of soaps— Determination of free caustic alkali*

ISO 684, *Analysis of soap — Determination of Total free alkali*

ISO 685, *Analysis of soap — Determination of alkali content and total fatty matter content*

ISO 673, *Analysis of soap — Determination of ethanol insoluble matter*

ISO 862: *Surface active agents - Vocabulary*

ISO 1067, *Analysis of soap — Determination of unsaponifiable, unsaponified and unsaponified saponifiable matter*

3 Terms and definitions

For the purposes of this standard terms and definitions specified under ISO 862 and the following shall apply.

3.1

soap

The product formed by the saponification or neutralization of fats, oils, waxes, rosins or their acids with organic or inorganic bases.

3.2

toilet soap

A soap which is intended for use in bathing.

3.3

saponification

A chemical reaction permitting the separation of an ester into its constituent parts, acid and alcohol, or possibly phenol, by the action of a base, with the formation of a salt from the acid. Saponification of fats produces soap.

3.4

colouring matter

Any dyestuff that may be used to colour toilet soap.

3.5

free caustic alkali

It is the free (uncombined) caustic alkali present in a soap.

3.6**total fatty matter**

Includes either the water-insoluble or ether soluble fatty matter under the specified conditions of test.

3.7**total free alkali**

The sum of the free caustic alkali and the free carbonate alkali contents.

4 Requirements**4.1 General requirements****4.1.1 Texture, colour and odour**

Toilet soap shall be firm and of uniform texture and colour and shall be free from objectionable (disagreeable) odour.

4.1.2 Ingredients

It shall not cause skin irritation and shall have good lathering and cleansing properties. All ingredients used in the product shall be non-injurious to health. Perfumes and, colouring matter may be added.

4.1.3 Texture and stability

Toilet soap shall remain hard and smooth and shall also not crumble when tested in accordance with Annex A.

4.2 Chemical characteristics

The toilet soap shall comply with the requirements specified in Table 1.

Table 1 — Chemical characteristics

Characteristic	Requirement	Method of test
Total free alkali content as Na ₂ O, % by mass, <i>max</i>	0.2	ISO 684
Total fatty matter content, % by mass, <i>min</i>	76.0	ISO 685
Content of matter insoluble in ethanol, % by mass, <i>max</i>	2	ISO 673
Free caustic alkali content as NaOH, % by mass, <i>max</i>	0.1	ISO 456
Free fatty acids content as oleic acid, % by mass, <i>max</i>	0.3	-
Chlorides content as NaCl, % by mass, <i>max</i>	0.8	ISO 457
Unsaponified fatty matter content, % by mass, <i>max</i>	0.5	ISO 1067
<p>NOTE Allowance should be made for the loss of moisture of the soap on storage. The results for each of the above-specified methods of test shall be corrected in relation to the specified minimum total fatty matter by means of the equation:</p> <p style="text-align: center;">Corrected result = $\frac{\text{Actual result} \times \text{Minimum total fatty matter}}{\text{Actual total fatty matter}}$</p> <p>The corrected results shall be used to determine whether the product is up to standard.</p>		

5 Packing and marking

5.1 Packing

The soap cakes shall be suitably wrapped to protect them from damage.

5.2 Marking

Each wrapped cake of toilet soap shall be marked with the following:

- (a) name of product, and the trade name or brand name, if any;
- (b) manufacturer's name and address;
- (c) batch identification;
- (d) Total Fatty Matter content (TFM);
- (e) net mass and
- (f) country of origin.

6 Sampling and inspection

6.1 Sampling

In a single consignment, all packages (cartons) containing toilet soap cakes drawn from the same batch of production shall constitute a lot. For ascertaining the conformity of the lot to the requirements of this standard, tests shall be carried out on each lot separately. The number of packages to be selected for drawing the sample shall be in accordance with Table 2.

Table 2 — Scale of sampling

Number of packages (cartons) in the lot <i>N</i>	Number of packages (cartons) to be selected <i>n</i>
4 to 15	3
16 to 40	4
41 to 65	5
66 to 110	7
111 and above	10

6.1.1 The packages shall be selected at random, using tables of random numbers. If these are not available, the following procedure shall be applied:

Starting from any package, count all the packages in one order as 1, 2, 3.... *N*, selecting every k^{th} package, where k is the integral part of $N \div n$.

6.1.2 From each package thus selected, draw at random an equal number of cakes so as to obtain a total mass of at least 2 kg.

6.2 Inspection

Inspect the cakes selected for compliance with the requirements of 6.1

6.3 Preparation of test samples

6.3.1 Composite sample

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Weigh each cake separately (including any material that may have adhered to the wrapper), and calculate the average mass. Keep one cake for the test in 4.1.3. Cut each of the remaining cakes into eight parts by means of three cuts at right angles to each other through the middle. Grate finely the whole of two diagonally opposite eighths of each specimen. Mix the gratings and place in a clean, dry, airtight glass container.

6.3.2 Samples for testing

Immediately after, take at one time all test samples required for the tests in 4.2. Weigh out last the test sample required for determination of free alkali or acid content, and use it immediately.

7 Compliance with the standard

The lot shall be deemed to comply with the requirements of this standard if, after inspection and testing, the requirements of clause 4 are satisfied.

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Annex A
(Normative)

Texture and Stability test

When immersed in 1 L of distilled water for 1 h at 25 °C – 30 °C, Toilet soap shall not show signs of disintegration, and when dried at room temperature for 25 h thereafter, it shall not crumble, crack or break

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Bibliography

- [1] EAS 031:1997, East African harmonised standard specification for Laundry soap.
- [2] MS 12:1980, Mauritian Standard specification for toilet soap
- [3] BS 1914:1995, Specification for toilet soap

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