EAST AFRICAN STANDARD

Toilet soap — Specification

EAST AFRICAN COMMUNITY

HS 3401.11.0000
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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 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 meet the above objectives, the EAC Partner States have enacted an East African Standardization, Quality Assurance, Metrology and Test Act, 2006 (EAC SQMT Act, 2006) to make provisions for ensuring standardization, quality assurance, metrology and testing of products produced or originating in a third country and traded in the Community in order to facilitate industrial development and trade as well as helping to protect the health and safety of society and the environment in the Community.

East African Standards are formulated in accordance with the procedures established by the East African Standards Committee. The East African Standards Committee is established under the provisions of Article 4 of the EAC SQMT Act, 2006. 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.

Article 15(1) of the EAC SQMT Act, 2006 provides that “Within six months of the declaration of an East African Standard, the Partner States shall adopt, without deviation from the approved text of the standard, the East African Standard as a national standard and withdraw any existing national standard with similar scope and purpose”.

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.
Toilet soap — Specification

1 Scope

This East African Standard specifies requirements, sampling and test methods 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 Definitions

For the purposes of this standard terms and definitions specified under ISO 862 and the following 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 in which a fat is converted into a soap the the action a base (ISO 862)

3.4 colouring matter
any safe dyestuff that may be used to colour toilet soap

3.5 free caustic alkali
it is the 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
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 and shall comply with EAS 377 (2)

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

4.2 Chemical characteristics
Toilet soap shall comply with the requirements specified in Table 1.

Table 1 — Chemical characteristics

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Characteristic</th>
<th>Requirement</th>
<th>Method of test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total fatty matter content, % by mass, ( min )</td>
<td>76.0</td>
<td>ISO 685</td>
</tr>
<tr>
<td>2</td>
<td>Content of matter insoluble in ethanol, % by mass, ( max )</td>
<td>2</td>
<td>ISO 673</td>
</tr>
<tr>
<td>3</td>
<td>Free caustic alkali content as NaOH, % by mass, ( max )</td>
<td>0.1</td>
<td>ISO 456</td>
</tr>
<tr>
<td>4</td>
<td>Free fatty acids content as oleic acid, % by mass, ( max )</td>
<td>0.3</td>
<td>—</td>
</tr>
<tr>
<td>5</td>
<td>Chlorides content as NaCl, % by mass, ( max )</td>
<td>0.8</td>
<td>ISO 457</td>
</tr>
<tr>
<td>6</td>
<td>Unsaponified fatty matter content, % by mass, ( max )</td>
<td>0.5</td>
<td>ISO 1067</td>
</tr>
<tr>
<td>7</td>
<td>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:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[
\text{Corrected result} = \frac{\text{actual result} \times \text{minimum total fatty matter}}{\text{actual total fatty matter}}
\]

The corrected results shall be used to determine whether the product is up to standard.
5 Packing and marking

5.1 Packing

the soap cakes shall be so wrapped as to protect them from damage and excessive loss or gain of moisture

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 number;
(d) Total Fatty Matter content (TFM);
(e) net content
(f) country of origin.
(g) Bet before date
(h) Date of manufacturers
(i) Best before date

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>
<thead>
<tr>
<th>Number of packages (cartons) in the lot</th>
<th>Number of packages (cartons) to be selected</th>
<th>Number of samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 to 15</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>16 to 40</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>41 to 65</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>66 to 110</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>111 and above</td>
<td>10</td>
<td>1</td>
</tr>
</tbody>
</table>

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 \( k \) package, where \( k \) is the integral part of \( N/n \).

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

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 preparation of composite sample (6.3.1), take at one time all test samples required for the tests in 4.2. Weigh out 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 and 5 are satisfied.
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.
Bibliography
