Opaque beer — Specification
Compliance with this standard does not, of itself confer immunity from legal obligations

A Uganda Standard does not purport to include all necessary provisions of a contract. Users are responsible for its correct application
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(c) the National Enquiry Point on TBT/SPS Agreements of the World Trade Organisation (WTO).

The work of preparing Uganda Standards is carried out through Technical Committees. A Technical Committee is established to deliberate on standards in a given field or area and consists of representatives of consumers, traders, academicians, manufacturers, government and other stakeholders.

Draft Uganda Standards adopted by the Technical Committee are widely circulated to stakeholders and the general public for comments. The committee reviews the comments before recommending the draft standards for approval and declaration as Uganda Standards by the National Standards Council.


Wherever the words, “East African Standard” appear, they should be replaced by “Uganda Standard.”
EAST AFRICAN STANDARD

Opaque beer — Specification

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.

In order to achieve this objective, the Community established an East African Standards Committee mandated to develop and issue East African Standards.

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.

EAS 61 was prepared by Technical Committee EASC/TC 007, Alcoholic and non-alcoholic beverages.

This second edition cancels and replaces the first edition EAS 61:2000, which has been technically revised.
Opaque beer — Specification

1 Scope

This East African Standard specifies the requirements and methods of sampling and test for opaque beer. The standard does not cover stout beer.

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.

CODEX STAN 192, Codex general standard for food additives

EAS 5, Refined white sugar — Specification

EAS 38, Labelling of prepackaged foods — Specification

EAS 39, Hygiene in the food and drink industry — Code of practice

EAS 100, Food stuffs — Methods of determination of Lead

ISO 1842, Fruit and vegetable products — Determination of pH

ISO 4832, Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coliforms — Colony-count technique

ISO 4833-1, Microbiology of the food chain — Horizontal method for the enumeration of micro-organisms — Part 1: Colony-count at 30 degrees C — Pour plate technique

ISO 6461-2, Water quality — Detection and enumeration of the spores of sulphite-reducing anaerobes (Clostridia) — Part 2: Method by membrane filtration

ISO 6634, Fruits, vegetables and derived products — Determination of arsenic content — Silver diethyldithiocarbamate spectrophotometric method

ISO 16050, Foodstuffs Determination of aflatoxin B₁, and the total content of aflatoxins B₁, B₂, G₁ and G₂ in cereals, nuts and derived products — High-performance liquid chromatographic method

3 Terms and definitions

For the purposes of this standard, the following term and definition shall apply.

opaque beer
potable liquid derived from the fermentation of a mash of cereal grain, and /or other products of plant origin, with or without honey, sugar or a mixture of any of these; containing the mash or the residual mash from which it is derived
4 Requirements

4.1 General requirements

Opaque beer shall:

a) be free from any harmful ingredients, substances, additives and any other contaminants injurious to health or any extraneous matter;

b) be free from any added artificial colouring matter, apart from caramel derived from white sugar complying with relevant East African standards;

c) be free from artificial sweetening agents;

d) not contain any added alcohol;

e) not show a separation of more than 20 % of solid phase; and

f) have the characteristic appearance, taste and aroma of their type.

4.2 Specific quality requirements

Opaque beer shall comply with the quality requirements specified in Table 1.

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Characteristic</th>
<th>Requirement</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>Ethyl alcohol content, %, v/v</td>
<td>1.5 - 8.0</td>
<td>EAS 104</td>
</tr>
<tr>
<td>ii.</td>
<td>pH</td>
<td>2.5 - 5.0</td>
<td>ISO 1842</td>
</tr>
<tr>
<td>iii.</td>
<td>Soluble solids content, %, m/v</td>
<td>3.0 - 6.0</td>
<td></td>
</tr>
<tr>
<td>iv.</td>
<td>Specific gravity at 20 °C</td>
<td>1.005 - 1.045</td>
<td></td>
</tr>
<tr>
<td>v.</td>
<td>Total solid, %, m/v</td>
<td>4.0 - 9.0</td>
<td></td>
</tr>
<tr>
<td>vi.</td>
<td>Total acidity as tartaric acid, g/100 L, max.</td>
<td>0.55</td>
<td></td>
</tr>
<tr>
<td>vii.</td>
<td>Volatile acidity as acetic acid, g/100 L, max.</td>
<td>0.6</td>
<td></td>
</tr>
</tbody>
</table>

5 Food additives

Food additives may be used in the preparation of opaque beer in accordance with CODEX STAN 192.

6 Contaminants

6.1 Pesticide residues

All the raw materials used in the production of opaque beer shall comply with the maximum residue limits for pesticides as established by the Codex Alimentarius Commission.

6.2 Heavy metals

Opaque beer shall not contain heavy metals at levels exceeding the limits indicated in Table 2.
Table 2 — Limits for heavy metal contaminants in opaque beer

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Type of impurity</th>
<th>Limit</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>Arsenic (as As), mg/L, max.</td>
<td>0.01</td>
<td>ISO 6634</td>
</tr>
<tr>
<td>ii.</td>
<td>Lead (as Pb), mg/L, max.</td>
<td>0.01</td>
<td>EAS 100</td>
</tr>
</tbody>
</table>

6.3 Aflatoxin limits

Total aflatoxin shall not exceed 10 µg/L and aflatoxin B₁ shall not exceed 5 µg/L when tested in accordance with ISO 16050.

7 Hygiene

Opaque beer shall be manufactured and handled in a hygienic manner in accordance with EAS 39 and shall conform to the microbiological limits stipulated in Table 3.

Table 3 — Microbiological limits for opaque beer

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Organism</th>
<th>Maximum limit</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>Coliforms, cfu/mL</td>
<td>Nil</td>
<td>ISO 4832</td>
</tr>
<tr>
<td>ii.</td>
<td>Total viable count, cfu/mL, max.</td>
<td>$10^5$</td>
<td>ISO 4833-1</td>
</tr>
</tbody>
</table>

8 Weights and measures

The volume and fill of opaque beer shall comply with the Weights and measures regulations’ of Partner States or equivalent legislation.

9 Packaging

9.1. Opaque beer shall be packaged in suitable food grade containers.

9.2 Opaque beer shall be packaged for bulk delivery and storage in containers that shall prevent contamination of the product and preserve its safety and quality.

10 Labelling

In addition to the requirements of EAS 38, the following specific labelling requirements shall apply and shall be legibly and indelibly marked:

a) name of the product as “Opaque beer”;

b) name and physical and postal address of manufacturer;

c) net contents in millilitres or litres;

d) minimum ethyl alcohol content at the time of packing;

e) date of manufacture;
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f) best before date;
g) storage instruction;
h) statutory warnings; and
i) list of ingredients.

7 Sampling and test

Sampling and testing of opaque beer shall be done in accordance with EAS 104.