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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.

FDEAS 139 was prepared by Technical Committee EASC/TC 007, Alcoholic and non-alcoholic beverages.

This second edition cancels and replaces the first edition EAS 139:2000, which has been technically revised.
Fortified wine — Specification

1 Scope

This Final Draft East African Standard specifies the requirements and methods of sampling and test for fortified wine.

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, General standard for food additives

CAC/GL 66, Guidelines for the use of flavourings

EAS 38, Labelling of pre-packaged foods

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

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

EAS 100, Food stuffs — Methods of determination of Lead

EAS 143, Brandy — Specification

EAS 144, Standard specification for neural spirit for manufacture of alcoholic beverages

ISO 7952, Fruits, vegetables and derived products — determination of copper content — Method using flame atomic absorption spectrometry

ISO 5517, Fruits, vegetables and derived products— determination of iron content- 1,10 - phenanthroline photometric method

ISO 5523, Liquid fruit and vegetables — Determination of sulphurdioxide content (Routine method)

ISO 6636-2, Fruits, vegetables and derived products — Determination of zinc content — Part 2; Atomic absorption spectrometric method

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

3 Terms and definitions

For the purposes of this standard, the following terms and definitions shall apply.
3.1 Wine
Alcoholic beverage produced by the complete or partial fermentation exclusively of fresh grapes, grape must, or products derived from fresh grapes fruit wine

3.2 Fruit wine
Alcoholic beverage produced by the complete or partial fermentation of fresh fruits, or products derived from fresh fruits other than grapes

3.2 fortified wine
wine or fruit wine into which distilled spirit of fruit origin or neutral spirit have been added to achieve final alcohol content

3.3 dry wine
wine in which practically all the sugar has been converted by fermentation into alcohol

3.4 sweet wine
wine which contains some unfermented sugar

3.5 extraneous matter
includes inorganic matter such as sand, glass, metal, gravel, dirt, pebbles, stones, lumps of earth, clay and mud and organic matter such as chaff, straw, weed seeds and fruit matter, insects or insects fragments, rodent hairs or any other foreign matter

4 Requirements

4.1 Ingredients
The ingredients for fortified wine may include the following:

a) wine conforming to EAS 138;

b) distilled water conforming to EAS 123 or demineralised water;

c) neutral spirit conforming to EAS 144 or distilled spirit of fruit origin; and

d) flavouring agents, if used, in accordance with CAC/GL 66.

4.2 General requirements
Fortified wine shall:

a) possess the characteristic taste and aroma associated with the type of wine;

b) be free from cloudiness;

c) be so produced, as to prevent spoilage during storage under normal conditions;

d) have typical organoleptic characteristics of their raw material;

e) have no artificial colour added to give or amplify colour; and
f) be free from any extraneous matter injurious to health.

4.3 Specific quality requirements

4.3.1 Fortified wine shall meet the quality requirements of specified in Table 1.

Table 1 — Quality requirements for fortified wine

<table>
<thead>
<tr>
<th>SL 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>15 - 24</td>
<td></td>
</tr>
<tr>
<td>ii.</td>
<td>Methyl alcohol content mg/l of absolute alcohol, max</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>iii.</td>
<td>Total acids,</td>
<td></td>
<td>EAS 104</td>
</tr>
<tr>
<td></td>
<td>as tartaric acid, g/L (fortified wine)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>as citric acid, g/L (fortified fruit wine)</td>
<td>4 - 15</td>
<td></td>
</tr>
<tr>
<td>iv.</td>
<td>Volatile acids, as acetic acid, g/L of absolute alcohol, max</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>v.</td>
<td>Total sugar as invert sugar, g/L</td>
<td>Dry wine: ≤ 4 g/l</td>
<td>ISO 7952</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Medium dry wine: &gt; 4 g/L - ≤ 12 g/L</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Semi-sweet: &gt; 12 g/L - ≤ 45 g/L</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sweet wine: ≥ 45g/L</td>
<td></td>
</tr>
<tr>
<td>vi.</td>
<td>Copper, mg/L, max</td>
<td>2.0</td>
<td></td>
</tr>
</tbody>
</table>

4.3.2 Fortified wine shall contain at least 60 % of absolute alcohol from base wine.

5 Food additives

Food additives may be used in the production of fortified wine in accordance with CODEX STAN 192.

6 Heavy metal contaminants

When tested in accordance with EAS 100 the level of lead shall not exceed 0.2 mg/L.

7 Hygiene

Fortified wine shall be manufactured and handled in a hygienic manner in accordance with EAS 39.

8 Weights and measures

The volume and fill of fortified wine shall comply with the weights and measures regulations of Partner States or equivalent legislation.
9 Packaging

9.1 Fortified wine shall be packaged in suitable food grade containers.

9.2 Fortified wine 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) common name as ‘Fortified wine' preceded by the fruit name where the wine is produced from other fruit other than grape;

b) name, physical location and address of manufacturer;importer/bottler

c) ethyl alcohol content, % by volume;

d) net content;

e) batch identification number/code;

f) country of origin; and

g) statutory warnings.

11 Sampling and test

Sampling and test shall be carried out in accordance with EAS 104.