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DRAFT EAST AFRICAN STANDARD

Tomatoes — 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 83 was prepared by Technical Committee EAS/TC 016

Fresh tomatoes — Specification

1 Scope

This Draft East African Standard specifies requirements for fresh tomatoes (*Lycopersicon esculentum*) of the family *Solanaceae* for direct human consumption.

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.

EAS 38, Labelling of pre-packaged foods — Specification

EAS 39, Code of practice for hygiene in the food and drink manufacturing industries

EAS 41, Fresh fruit and vegetable products – Sampling and method of test

ISO 874, Fresh fruits and vegetables – Sampling

ISO 6633, Fruits, vegetables and derived products -- Determination of lead content -- Flameless atomic absorption spectrometric method

ISO 17240, Fruit and vegetable products -- Determination of tin content -- Method using flame atomic absorption spectrometry

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

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

ISO 17239, Fruits, vegetables and derived products -- Determination of arsenic content -- Method using hydride generation atomic absorption spectrometry Conformance

3 Definitions

For the purpose of this draft standard, the following definitions shall apply:

3.1

clean

Free from dirt, dust, insect stains, traces of chemicals, or other foreign substances and material.

3.2

cloud (blotchy ripening)

Patches of tissues of no definite pattern which fail to ripen normally.

- 3.4
green back**
Uneven distribution of green patches, which may be caused by physiological or pathological defects.
- 3.5
hard core**
A hard or solid area surrounding the core.
- 3.6
mature**
Fully developed or having a degree of ripeness that will ensure the completion of the ripening process after harvesting.
- 3.7
matured green**
The surface of the tomato is still green, the contents of the seed cavities have developed a jellied consistency and the seeds are fully developed.
- 3.8
damage**
Any defect or injury, which materially affects the appearance or storage quality of the vegetable.
- 3.9
- diseases**
Any unhealthy condition caused by any fungus, bacterium, virus, pest or other cause and includes any fungus, bacterium, and virus or pest
- 3.10
- similar varietal characteristics**
The tomatoes in any one lot are of the same type and colour.
- 3.11
diameter**
The greatest width measured in a line at right angles to the longitudinal section.
- 3.12**
- serious defects**
Surface blemishes of an aggregate area exceeding 15 per cent of the aggregate surface area of the tomatoes in the lot, or any deformities so serious as to cause a loss of over 20 per cent of the lot in the ordinary process of preparation for use

4 Requirements

4.1 General requirements

4.1 Tomatoes shall be

- a) clean,
- b) intact
- c) sound.
- d) of similar varietal characteristics.

- e) free from foreign smell or taste.
- f) well formed according to variety.
- g) mature but not over-ripe or soft.
- h) free from disease, damage and decay.
- i) free from green backs, hard core, cloud and growth cracks.
- j) free from abnormal external moisture.

4.1.2 The condition of the fresh tomatoes shall be such as enable them to:

- a) correspond to the particular characteristics of the variety, and
- b) withstand transport and handling;
- c) arrive in a satisfactory condition at the place of destination in order to ripen satisfactorily.

4.2 Specific requirements

4.2.1 Classification

Fresh tomatoes shall be grouped into three classes: Extra Class, Class I and Class II.

4.2.1.1 Extra Class

Tomatoes in this class shall be of superior quality. In addition to the minimum requirements as specified, the following shall apply:

- a) The tomatoes shall be firm.
- b) They shall have no defects.
- c) No green backs shall be allowed.
- d) A distinction is made between 'smooth' tomatoes and 'ribbed' tomatoes. The ribs shall not however extend for more than one-third of the peripheral distance between stalk and top.

4.2.1.2 Class I

Tomatoes in this class shall be of good quality and shall comply with the requirements in 4.1. In addition the following shall apply:

- a) They shall be reasonably firm and without serious defects.
- b) They may have slight bruises. Healed or unhealed cracks and visible 'green backs' are excluded.
- c) A distinction is made between 'smooth' tomatoes and 'ribbed' tomatoes. The tomatoes shall however be regular in shape.

4.2.1.3 Class II

This class shall comprise tomatoes of marketable quality, which do not qualify for inclusion in the other classes. They may have the following defects:

- a) The tomatoes may be irregular in shape.
- b) Healed cracks not more than 3 cm in length are allowed.
- c) slight green backs and hard core.

4.2.2 Sizing

The tomatoes shall be packed according to sizes specified in Table 1.

Table 1 – Sizing for fresh tomatoes

Size code	diameter (mm)
0	≤ 20
1	< 20 ≤ 25
2	< 25 ≤ 30
3	< 30 ≤ 35
4	< 35 ≤ 40
5	< 40 ≤ 47
6	< 47 ≤ 57
7	< 57 ≤ 67
8	< 67 ≤ 82
9	< 82 ≤ 102
10	< 102

4.2.3 Tolerances

The following tolerances in respect of quality and size shall be allowed for tomatoes not satisfying the requirements of the class indicated on each package.

- a) Quality tolerance. In each container not more than 5 per cent of tomatoes (by weight or number) for Extra Class and not more than 10 per cent of tomatoes (by weight or number) for Class I and Class II shall be below the requirements specified for the particular class.
- b) Size tolerance. In each container not more than 10 per cent of the tomatoes shall fall into the size adjacent to that which is specified.

6 Contaminants

6.1 Pesticide residues

Tomatoes shall comply with those maximum residue limits established by the Codex Committee on Pesticide Residues for this commodity.

6.2 Metal contaminants

When tested in accordance with ISO 6633, the Lead content in fresh tomatoes shall not exceed 0.05 mg/kg.

7 Hygiene

Fresh tomatoes shall be prepared and handled in accordance with CAC/RCP 53-2003.

8 Packaging

7.1 Fresh tomatoes shall be packed in such a way as to protect the produce properly. The food grade packaging material used inside the package shall be clean and of a quality such as to avoid causing any external or internal damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications is allowed, provided the printing or labelling has been done with non-toxic ink or glue. Packages must be free from any foreign matter and the material shall be recyclable.

7.2 Fresh tomatoes shall also be packed in containers in accordance with ISO 7558. Every container shall be deep enough to take the whole length of an individual tomato without any damage to the crown. Vertical containers are recommended. When non-compartmented containers are used, individual tomatoes shall be wrapped in clean materials and extra padding material shall be placed around, under and over them to make a firm pack. The material used inside the containers shall be new and non-toxic.

7.3 The contents of each package shall be uniform and consist exclusively of fresh tomatoes of the same origin, variety and/or commercial type, and quality. The visible part of the content of the package shall be representative of the entire contents.

9. Labeling

In addition to the requirements of the EAS 38; the following specific provisions apply for each package; legibly and indelibly marked.

- i) Name, postal and physical address of the packer or dispatcher
- ii) Name of the produce as " Fresh tomatoes ",
- iii) Name of the variety or commercial type.
- iv) Origin of produce
- v) Harvest date
- vi) Net weight (kg).
- vii) Size code
- viii) Class
- ix) Identification code and/or batch number
- x) storage instructions

10 Sampling

Representative samples of fresh tomatoes shall be sampled in accordance with ISO 874.

Bibliography

- [1] Codex standard for tomatoes (Codex stan 293-2008)
- [2] UNECE standard ffv-36 tomatoes

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