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Tomato products — Specification — Part 1: Canned tomato

EAST AFRICAN COMMUNITY

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Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Styles and types of pack	2
5 Requirements	3
5.1 General requirements	3
5.1.1 Colour	3
5.1.2 Flavour	3
5.1.3 Wholeness	3
5.1.4 Defects	3
5.2 Requirements of the packaging media	3
5.3 Food additives	3
6 Contaminants	3
6.1 Pesticide residues	3
6.2 Heavy metal contaminants	3
7 Hygiene	4
8 Drained weight	4
9 Packaging	4
10 Labelling	4
Bibliography	6

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.

The Community has established an East African Standards Committee (EASC) mandated to develop and issue East African Standards (EAS). The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the public and private sector organizations in the community.

East African Standards are developed through Technical Committees that are representative of key stakeholders including government, academia, consumer groups, private sector and other interested parties. 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 Principles and procedures for development of East African Standards.

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.

The committee responsible for this document is Technical Committee EASC/TC 025, *Processed fruits, vegetables and tubers*.

This **third** edition cancels and replaces the **second** edition (US 66-1:2017), which has been technically revised.

Attention is drawn to the possibility that some of the elements of this document may be subject of patent rights. EAC shall not be held responsible for identifying any or all such patent rights.

Tomato products — Specification — Part 1: Canned tomato

1 Scope

This Draft East Africa Standard specifies the requirements, sampling and test methods for canned tomatoes *Solanum lycopersicum* L. for human consumption.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

AOAC 968.30, *Canned vegetables — Drained weight procedure*

CODEX STAN 192, *General standard for food additives*

EAS 38, *Labelling of pre-packaged foods — Specification*

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

ISO 4833 (All parts), *Microbiology of the food chain — Horizontal methods for the enumeration of microorganisms*

6579-1, *Microbiology of the food chain — Horizontal method for the detection, enumeration and serotyping of Salmonella — Part 1: Detection of Salmonella spp*

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

ISO 16649-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of beta-glucuronidase-positive Escherichia coli — Part 2: Colony-count technique at 44 degrees C using 5-bromo-4-chloro-3-indolyl beta-D-glucuronide*

ISO 17240:2004, *Fruit and vegetable products — Determination of tin content — Method using flame atomic absorption spectrometry*

ISO 21527-1, *Microbiology of food and animal feedingstuffs — Horizontal methods for the enumeration of yeasts and moulds*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

canned tomato

product prepared from clean, ripe and sound tomato conforming to the characteristics of the tomato variety used and which are physically preserved by heat.

3.2

whole tomato

tomato of any size in which the contour is not materially altered by coring and trimming and shall not be cracked or split to the extent of having material loss of placenta

3.3

objectionable core material

internal core material of tough and fibrous texture

3.4

extraneous plant materials

tomato leaves, stems, calyx bracts and similar plant material

3.5

peeled tomato

tomato in which the skin has been removed

3.6

unpeeled tomato

tomato in which the skin is intact

3.7

drained weight

weight of the solid portion of the product with the liquid drained after thermal processing.

4 Styles and types of pack

4.1 Canned tomato shall be in any of the following forms, with or without skin:

- a) whole;
- b) whole and pieces; and
- c) pieces:
 - i) diced, tomato cut into cubes;
 - ii) sliced, tomato cut perpendicularly to the longitudinal axis in rounds with regular thickness;
 - iii) wedges, tomato cut into roughly four equal parts; and
 - iv) pulped, crushed or chopped, tomato crushed, ground or pulped when appropriate.

4.2 Canned tomato shall be packed in any of the following forms:

- a) regular pack with a liquid medium added; and
- b) solid pack without any added liquid medium.

5 Requirements

5.1 General requirements

5.1.1 Colour

Canned tomato shall have a characteristic colour of the tomato variety that have been properly prepared and processed. No artificial colouring matter shall be added to the product.

5.1.2 Flavour

Canned tomato shall have a normal flavour and shall be free from flavour foreign to the product. Canned tomato with special added ingredients shall have a flavour characteristic of that imparted by the tomatoes and the other substances used.

5.1.3 Wholeness

Canned tomato of 'whole' style shall consist of not less than 65 % m/m of drained tomato in whole units.

5.1.4 Defects

Canned tomato shall be free from extraneous matter, objectionable core material, peels, dark specks or any other inedible plant material.

5.2 Requirements of the packaging media

5.2.1 Canned tomato may be packed in the following packing media:

- a) juice — unconcentrated, undiluted liquid from ripe sound tomato;
- b) residual material — liquid strained from the residue from preparing tomato for canning;
- c) puree or pulp — unconcentrated tomato juice; and
- d) paste — highly concentrated tomato juice.

5.2.2 The packing media shall have a pH of 4.5 or lower.

5.3 Food additives

Food additives when used shall comply with CODEX STAN 192.

6 Contaminants

6.1 Pesticide residues

The products shall conform to those maximum residue limits established by the Codex Committee on Pesticide Residues for this commodity.

6.2 Heavy metal contaminants

The product shall not exceed the limits for heavy metals indicated in Table 1 when tested in accordance with the test methods prescribed therein.

Table 1 — Limits for heavy metal contaminants in canned tomato

S/N	Heavy metal	Maximum limits mg/kg	Test method
i)	Tin (Sn)	250	ISO 17240
ii)	Lead (Pb)	0.05	ISO 6633

7 Hygiene

7.1 Canned tomato shall be prepared under hygienic conditions in accordance with EAS 39.

7.2 Canned tomato shall be free from pathogenic organisms and shall comply with the microbiological limits indicated in Table 2.

Table 2 — Microbiological limits for canned tomato

S/N	Type of micro-organism	Maximum limit	Test method
i)	Total viable counts, cfu/g	10	ISO 4833 (all parts)
ii)	Yeast and moulds cfu/g	Shall be absent	ISO 21527-1
iii)	<i>Escherichia coli</i> cfu/g	Shall be absent	ISO 16649-2
iv)	<i>Salmonella</i> sp. per 25 g	Shall be absent	6579-1

8 Drained weight

Drained weight of the contents shall be not less than 50 % of the net weight of the container and shall be determined in accordance with AOAC 968.30.

9 Packaging

9.1 Canned tomato shall be packed in a food grade acid resistant lacquering material that shall not affect the quality of the product.

9.2 The interior of the can shall not show any black discolouration, rusting or pitting.

10 Labelling

In addition to the requirements of EAS 38, the following specific labelling requirements shall be legibly and indelibly labelled on each container:

- name of product including the type shall be — Canned tomato; and if the peel has not been removed, the word "Unpeeled" or if the peel has been removed, the word "Peeled", shall precede the name of the product;
- style according to Clause 4;
- name, and physical address of manufacturer/importer/distributor;

- d) country of origin;
- e) date of manufacture and expiry date;
- f) list of ingredients;
- g) net content in grams;
- h) drain weight in grams;
- i) storage instructions;
- j) batch number in code or in clear; and
- k) instructions on use.

Bibliography

CODEx STAN 13-1981, Codex standard for preserved tomatoes

