DEAS 1241: 2024

ICS 67.230

# DRAFT EAST AFRICAN STANDARD

## Puree foods— Specification



## EAST AFRICAN COMMUNITY



First Edition 2024

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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.

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 018, *Nutrition and Foods for Special Dietary Uses.*

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.

# Puree foods— Specification

## 1 Scope

This Draft East African Standard specifies the requirements, sampling and test methods for puree foods intended for human consumption.

This standard excludes fruit puree covered in EAS 946.

## 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 999.11, Lead, Cadmium, Copper, Iron, and zinc in foods. Atomic absorption spectrophotometry after dry ashing

EAS 38, Labelling of pre-packaged foods — General requirements

ISO 5985, *Animal feeding stuffs — Determination of ash insoluble in hydrochloric acid*

## 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

— IEC Electropedia: available at http://www.electropedia.org/

**3.1**
**puree foods**
ready to eat food that has been blended, mashed, or processed into a smooth, homogeneous and soft consistency which do not require/ encourage chewing before being swallowed

**3.2**
**foreign matter**
all organic and inorganic material other than ingredients used

**3.3**
**extraneous matter**
organic matter originating from food plants and/or their products other than the designated product

**3.4**
**food grade packaging material**
packaging material made of substances which are safe and suitable for their intended use and which will not impart any toxic substance or undesirable odour or flavour to the product



 

# 4 Requirements

## 4.1 Essential ingredients

The following essential ingredients shall be used and shall comply with relevant standards:

a) vegetables or

b) legumes, or

c) roots, or

d) tubers or

e) their mixture

## 4.2 Optional ingredients

Optional ingredients for preparing puree foods shall comply with the relevant East African Standards. They include but are not limited to the following:

a) cereals,

b) nuts

c) sugar (only in products to be consumed by persons older than 24 months);

d) Salt;

e) meat;

f) fish;

g) fruits

h) spices;

i) vitamins and minerals in accordance with CXG 10;

j) milk and milk products and

k) Flavours in accordance with CXG 66

## 4.3 General requirements

Puree foods shall:

a) have smooth, homogeneous and soft consistency

b) free from off flavours and musty or other undesirable odour.

c) shall be clean, of good quality, safe.

d) Fish, meat and poultry ingredients when used shall be practically free of bone pieces

e) All ingredients, including optional ingredients shall comply to relevant standards;and

f) be free from extraneous and foreign matter.

### 4.4 Specific requirements

Puree foods shall comply with the specific requirements given in Table 1 when tested in accordance with test methods specified therein.

**Table 1 — Specific requirements for puree foods**

| S/N | Characteristic | Requirement | | Test method |
|---|---|---|---|---|
| 1. | Total sodium contenta mg Na/100 g max. | 200 | | ISO 8070 |
| 2. | Acid insoluble ash ( on dry basis,), percent by mass, max. | 0.2 | | ISO 5985 |
| 3. | Dry extract g/100g | Low viscosity | 12 - 14 | Annex A |
| | | Moderate viscosity | 15 - 30 | |
| | | High viscocity | 31 - 40 | |

## 5 Specific prohibition

**5.1** For puree intended for older infants and young children, the product and its components shall not have been treated by ionizing radiation.

**5.2** The use of partially hydrogenated fats for these products is prohibited.

## 6 Food additives

Puree foods may contain food additives and when used, they shall comply with CXS 192

## 7 Flavouring agents

The flavourings which may be used in products covered by this standard shall comply with the Guidelines for the Use of Flavourings (CXG 66).

## 8 Hygiene

**8.1** Puree foods shall be produced, processed, handled and stored in accordance with EAS 39

**8.2** The product shall comply with microbiological limits given in Table 2 when tested in accordance with test methods specified therein.

**Table 2 — Microbiological limits for Puree foods**

| S/N | Microorganism | Limit | Test method |
|---|---|---|---|
| 1. | Coliforms, CFU/g, max | $<10^{a}$ | ISO 4832 |
| 2. | *Salmonella* spp in 25 g | Absent | ISO 6579-1 |
| 3. | *Staphylococcus aureus*, CFU/g, max | $<10_{a}$ | ISO 6888-1 |
| 4. | Yeasts and moulds, CFU/g, max. | $10^{2}$ | ISO 21527-2 |
| 5. | *Bacillus cereus,* CFU/g, max. | 50 | ISO 7932 |

| | | | |
|---|---|---|---|
| 6. | *Clostridium Botulinum* | Absent | ISO/TS 17919 |
| [a] less than 10 CFU means that it is not detectable in that sample hence may commonly be referred to as absent. | | | |

## 9 Contaminants

### 9.1 Pesticide residues

Puree foods shall comply with those maximum pesticide residue limits established by the Codex Alimentarius Commission.

### 9.2 Heavy metals

Puree foods shall comply with the maximum limits for heavy metals given in Table 3 when tested in accordance with the test methods specified therein.

**Table 3 — Heavy metal limits for Puree foods**

| S/N | Heavy metal | Maximum limit, mg/kg | Test method |
|---|---|---|---|
| 1. | Lead | 0.2 | AOAC 999.11 |
| 2. | Cadmium | 0.1 | |
| 3. | Tin[a] | 250 | ISO 14377 |
| [a] Tin is applicable to canned puree. | | | |

### 9.3 Anti-nutritional factors

**9.3.1** If soya is used as a component of the product,

a) urease activity shall not exceed 0.3 mg N/g/min when tested in accordance with ISO 5506; and

b) trypsin inhibitor activity shall not exceed 5 mg/g when tested in accordance with ISO 14902

**9.3.2** If sorghum is used as a component of the product, the tannin content shall not exceed 0.3 % by mass on a dry matter basis when tested in accordance with ISO 9648.

**9.3.3** If cassava is used as a component of the product, the total hydrocyanic acid content shall not exceed 2 mg/kg, when tested in accordance with EAS 744.

### 9.4 Other contaminants

Puree foods shall comply with maximum limits for contaminants established in CXS 193.

## 10 Packaging

Puree foods shall be packaged in food grade packaging material that safeguards the quality, integrity and safety of the product

## 11 Labelling

In addition to the requirements in EAS 38 and EAS 803, each package shall be legibly and indelibly labelled with the following:

a) product name as “xxx Puree” followed by declaration of the level of viscosity, where xxx is the name of the food;

## 12 Nutrition and health claims

The product may have claims on nutrition and health. Such claims when declared shall comply with EAS 804 and EAS 805.

## 13 Sampling

Sampling shall be done in accordance with the Annex B.



 

# Annex A
(normative)

# Determination of dry matter

## A.1 Principle

To determine the dry matter content of porridge, calculate the percentage of water in the porridge and subtract that percentage from 100%:

## A.2 Apparatus

**A.2.1** Top pan balance

**A.2.2** Analytical balance

**A.2.3** Moisture dish

**A.2.4** Hot air oven

## A.3 Procedure

**A.3.1** Weigh an empty moisture dish (Mo). Add approximately 5g porridge to the moisture dish. Weigh the dish +the test portion before drying(M1)

**A.3.2** Subtract the weight of the empty moisture dish (Mo) from the total weight of moisture dish and test portion before drying(M1) to get the weight of the test portion before drying. (M1- Mo)

**A.3.3** In a water bath, evaporate the water present in the test portion. Dry the test portion in a Hot air oven at 105°C for 3-4 hours. Cool the test portion in a desiccator. Weigh the moisture dish and test portion after drying (M2)

## A.4 Calculations

Calculate the dry matter content using the following formula:

$$\text{Dry matter content } (\%) = 100\% - \{(M_1 - M_2)/ ((M_1 - M_o))\} \times 100$$

# Annex B
(normative)

# Sampling

## B.1 Definitions

### B.1.1 Lot

Collection of primary containers or units of the same size, type, and style manufactured or packed under similar conditions and handled as a single unit of trade.

### B.1.2 Lot size

Number of primary containers or units in the lot.

### B.1.3 Sample size

Total number of sample units drawn for examination from a lot.

### B.1.4 Sample unit

Container, a portion of the contents of a container, or a composite mixture of product from small containers that is sufficient for the examination or testing as a single unit. For fill of container, the sample unit shall be the entire contents of the container.

## B.2 Sampling plans

| **Lot size (primary containers)** | **Size of container, n [1]** |
|---|---|
| Net weight equal to or less than 1 kg (2.2 lb) | |
| 4 800 or less | 13 |
| 4 801 to 24 000 | 21 |
| 24 001 to 48 000 | 29 |
| 48 001 to 84 000 | 48 |
| 84 001 to 144 000 | 84 |
| 144 001 to 240 000 | 126 |
| Over 240 000 | 200 |
| Net weight greater than 1 kg (2.2 lb) but not more than 4.5 kg (10 lb) | |
| 2 400 or less | 13 |
| 2 401 to 15 000 | 21 |

| | |
|---|---|
| 15 001 to 24 000 | 29 |
| 24 001 to 42 000 | 48 |
| 42 001 to 72 000 | 84 |
| 72 001 to 120 000 | 126 |
| Over 120 000 | 200 |
| Net weight greater than 4.5 kg (10 lb) | |
| 600 or less | 13 |
| 601 to 2 000 | 21 |
| 2 001 to 7 200 | 29 |
| 7 201 to 15 000 | 48 |
| 15 001 to 24 000 | 84 |
| 24 001 to 42 000 | 126 |
| Over 42 000 | 200 |
| [1]n = number of primary containers in sample. | |

## Bibliography

[1] CXS 73-1981 Standard for Canned Baby Foods (2023)



 