



DEAS 954:2019

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# DRAFT EAST AFRICAN STANDARD

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## Meat sausages — 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.



## Meat sausages — Specification

### 1 Scope

This Draft East African Standard specifies requirements and methods of sampling and testing for sausages made from beef, lamb/mutton, goat meat, camel meat, pork and poultry intended for 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.

AOAC 2011.04, *Protein in Raw and Processed Meats — Automated Dye-Binding Method*

CAC/GL 50, *General guidelines on sampling*

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

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

Codex Stan 192, *General standard for food additives*

EAS 12, *Potable water — Specification*

[CD/U/737/2012](#), *Hygienic requirements for the production of packaged meat products (processed or manufactured)*

CAC/RCP 58-2005, *Code of hygienic practice for meat*

Codex Stan 193, *General standard for contaminants and toxins in food and feed*

ISO 936, *Meat and meat products -- Determination of total ash*

ISO 5961, *Water quality -- Determination of cadmium by atomic absorption spectrometry*

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

ISO 6637, *Fruits, vegetables and derived products -- Determination of mercury content -- Flameless atomic absorption method*

ISO 1442, *Meat and meat products -- Determination of moisture content (Reference method)*

ISO 1443, *Meat and meat products -- Determination of total fat content*

ISO 4833, *Microbiology of foods and animal feeding stuffs – Horizontal method for the enumeration of microorganisms – Part 2: Colony count technique at 30 °C*

ISO 10272-1, *Microbiology of the food chain -- Horizontal method for detection and enumeration of Campylobacter spp. -- Part 1: Detection method*

ISO 4833-1, *Microbiology of the food chain -- Horizontal method for the enumeration of microorganisms -- Part 1: Colony count at 30 degrees C by the pour plate technique*

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*

ISO 17604, *Microbiology of the food chain -- Carcass sampling for microbiological analysis*

ISO 6579, *Microbiology of food and animal feeding stuffs -- Horizontal method for the detection of Salmonella spp.*

ISO 6888-1, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) — Part 1: Technique using Baird-Parker agar medium*

ISO 7251, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of presumptive Escherichia coli — Most probable number technique*

**ISO 7937**, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of Clostridium perfringens — Colony count technique*

ISO 11290, *Microbiology of the food chain -- Horizontal method for the detection and enumeration of Listeria monocytogenes and of Listeria spp.*

ISO 17294-2, *Water quality -- Application of inductively coupled plasma mass spectrometry (ICP-MS) -- Part 2: Determination of selected elements including uranium isotopes*

### 3 Terms and definitions

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

#### 3.1

##### **meat**

all parts of slaughtered animal that are intended for or have been judged as safe and suitable for human consumption

#### 3.2

##### **poultry**

**birds domesticated for human consumption including chickens, turkeys, ducks, geese, guinea-fowls, quail or pigeons, Pheasant, Emu, Ostrich**

#### 3.3

##### **offal**

parts of the slaughtered animal removed during dressing such as intestines, blood, heart, kidney, liver, pancreas, spleen, thymus, tongue.

#### 3.4

##### **edible offals**

**parts** of the slaughtered animal removed during dressing that are fit for human consumption

#### 3.6

##### **raw meat**

meat that has not been subjected to any preserving process other than chilling, freezing, vacuum-wrapping and wrapping in a controlled atmosphere

**3.8****minced meat**

boneless meat that has been reduced into particles.

**3.9****meat preparations**

raw meat, including minced meat which has had foodstuffs, seasonings or additives added to it

**3.10****foodstuffs**

substance with a food value specifically the raw material of food before or after processing.

**3.11****seasonings**

substances added to food to modify colour, texture and flavour.

**3.12****food additives**

Any substance not normally consumed as food by itself and not normally used as typical ingredient of food whether or not it has a nutritional value, added to food for technological and organoleptic purposes.

**3.13****meat products**

products resulting from the processing of meat or from the further processing of such processed products, so that the cut surface shows that the product no longer has the characteristics of fresh meat

**3.14****casing**

natural or artificial materials used to protect and or hold sausages

**3.15****sausage meat**

product of minced pork, rabbit meat, beef, poultry meat or meat from suitable animals, a mixture of these, blended with or without spices and other seasonings

**3.16****sausage**

product obtained by stuffing sausage meat or other ingredients like soya protein in casings and which may be fresh, fermented, cooked and/or smoked

**3.17****meat content**

total amount of lean meat tissues and meat fat in the sausage or sausage meat

**3.18****fresh sausages**

sausages made from meats that have not been previously cured and require chilling or freezing and thorough cooking before eating

**3.19****cooked sausages**

sausages made with fresh meats and then fully cooked, intended to be either eaten immediately after cooking or refrigerated

**3.20****smoked sausages**

sausages that are smoked and require to be refrigerated and cooked thoroughly before eating



**3.21****dry sausages**

sausages prepared from one or more kinds of fresh, chilled or frozen meat subjected to a controlled air-drying process

**3.22****fermented sausages**

sausages that have undergone microbiological fermentation and curing

**3.23****food grade material**

materials that are free from substances that are hazardous to human health and may be permitted to come in contact with food

**4 Requirements****4.1 Raw material****4.1.1 Meat**

Meat sausages shall be obtained from meat types specified in the scope of this standard. Such meat shall have been passed as fit for human consumption by a competent authority.

**4.1.2 Curing ingredients**

Ingredients may be used in curing of meat for sausage manufacture in accordance with Codex Stan 192.

**4.1.3 Spices and seasonings**

Spices and seasonings used for sausage manufacture shall be fit for human consumption and conform to relevant standards.

**4.1.4 Water**

Water used in the preparation of sausages shall conform to EAS 12.

**4.2 Optional ingredients**

Optional ingredients listed below may be used in the preparation or manufacture of meat sausages. When used shall comply with the relevant East African Standards. In cases where EAS is not available manufactures are advised to consult with the Partner States.

- a) other products of animal origin;
- b) edible starch;
- c) cereals and cereal products;
- d) milk and milk products;
- e) sucrose, invert sugar, dextrose (glucose), lactose, maltose, glucose syrup (including corn syrup);
- f) water soluble, aromatic hydrolysed protein;
- g) vegetable protein products; and

h) eggs and egg products.

### 4.3 General requirements

**4.3.1** Fresh sausages shall be prepared from one or more kinds of fresh, chilled or frozen meat.

**4.3.2** Smoked sausages shall be prepared from one or more kinds of fresh, chilled or frozen meat and smoked with only hard wood or other non-resinous materials.

**4.3.3** Cooked sausages shall be prepared from one or more kinds of fresh, chilled or frozen meat cooked, seasoned and cured.

**4.3.4** Dry/fermented sausages shall be prepared from one or more kinds of fresh, chilled or frozen meat subjected to a controlled air-drying process.

### 4.4. Specific requirements

**4.4.1** Meat sausages shall comply with specific requirements given in Table 1.

**Table 1 — Specific requirements for meat sausages**

Parameter	Fresh	Smoked/Cooked	Dry fermented	Test methods
Meat, %, Min.	52	60	65	AOAC 2011.04
Fat, %, Max.	30	30	30	ISO 1443
Moisture content, %, Max.	65	60	50	ISO 1442
Total ash, % Max.	3	3	3	ISO 936

## 5 Hygiene

**5.1** In addition to CAC/RCP 58 meat sausages shall be produced, processed, handled and stored in accordance with EAS 39.

### 5.2 Microbiological limits

The product shall comply with microbiological limits specified in Table 2;

**Table 2 — Microbiological limits for meat sausages**

S/No.	Microorganism	Sausage type			Test Method
		Fresh	Smoked/cooked	Dry/fermented	
i)	Total plate count, cfu/g, max.	10 <sup>6</sup>	10 <sup>3</sup>	N/A	ISO 4833-1
ii)	<i>Staphylococcus aureas</i> , CFU, per g, max.	10 <sup>2</sup>	Absent	< 20	ISO 6888-1
iii)	<i>Escherichia Coli</i> , CFU, per g, max.	10 <sup>2</sup>	Absent	Absent	ISO 7251
iv)	<i>Salmonella</i> , per 10g, max.	Absent	Absent	Absent	ISO 6579
v)	<i>Clostridium perfringes</i>	Absent	Absent	Absent	ISO 7937
vi)	<i>Listeria monocytogens</i>	Absent	Absent	Absent	ISO 11290
vii)	<i>campylobacter in 25g</i>	Absent	Absent	Absent	ISO 10272-1

## 6 Food additives

Food additives used in meat sausages shall comply with Codex Stan 192.

## 7 Contaminants

### 7.1 Heavy metals

Meat sausages shall conform to maximum levels for heavy metals as specified in Table 3.

**Table 3 — Maximum limits of heavy metals contaminants**

S/No.	Contaminants	Maximum limits ppm	Test method
i	Arsenic (Ar)	0.1	ISO 17294-2
ii	Lead (Pb)	0.1	ISO 6633
iii	Cadmium	0.03	ISO 5961
iv	Mercury	0.01	ISO 6637

### 7.2 Veterinary drug residues

Meat sausages shall comply with the maximum drug residue limits specified in *CAC/MRL 2*

### 7.3 Pesticide residues

Meat sausages shall comply with the maximum pesticide residue limits as specified by the Codex Alimentarius Commission.

### 7.4 Aflatoxin

Total aflatoxin in meat sausages may be tested on request by the relevant authority. Values shall not exceed 10µg/kg while aflatoxin B1 shall not exceed 5 µg/kg when tested in accordance with ISO 16050.

## 8 Packaging

Meat sausages shall be packaged in food grade containers which will safeguard the hygienic, nutritional, technological, and organoleptic qualities of the product.

## 9 Labelling

In addition to the requirements of EAS 38, the following labelling requirements shall apply and shall be legibly and indelibly labelled.

- a) Name and type of the product (example, fresh, cooked, smoked, dry/fermented)
- b) List of ingredients
- c) Name of the manufacturer and physical address;
- d) Country of origin;
- e) Batch or code number;
- f) Net weight and gross weight;
- g) Date of production / packaging;
- h) Storage condition; and
- i) Date of expiry;

## **10 Weights and measures**

Meat sausages shall be packaged in accordance with the Weights and measures legislation of respective Partner States.

## **11 Sampling**

Sampling shall be in accordance with the provisions of CAC/GL 50 for general sampling and ISO 17604 for microbiological analysis



