



## **DRAFT EAST AFRICAN STANDARD**

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### **Raw Ground Meat Products — 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.

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 004, *Meat, poultry, game, eggs and related products*.

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.

## Introduction

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## Raw Ground Meat Products — Specification

### 1 Scope

This draft East African Standard specifies the requirements, sampling and test methods for raw ground/minced meat products. These products include, but not limited to, meat balls, patties, meat burgers, meat rolls and ground kebabs that are intended for further processing before consumption. This standard does not include meat sausages.

### 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.

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

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

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

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

*ISO/TS 17728 Microbiology of the food chain — Sampling techniques for microbiological analysis of food and feed samples*

*CAC/MRL 2, Maximum residue limits for veterinary drugs in food*

*ISO 6579-1, Microbiology of the food chain — Horizontal method for the detection, enumeration and serotyping of Salmonella — Part 1: 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 10272-2, Microbiology of the food chain — Horizontal method for detection and enumeration of Campylobacter spp. — Part 2: Colony-count technique*

*ISO 11290-1, Microbiology of the food chain — Horizontal method for the detection and enumeration of Listeria monocytogenes and of Listeria spp. — Part 1: Detection method*

*ISO 16654, Microbiology of food and animal feeding stuffs — Horizontal method for the detection of Escherichia coli O157:H7*

*CODEX STAN 192, General standard for food additives*

*EAS 12, Potable water — Specification*

*EAS 35, Edible salt — Specification*

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

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

*EAS xxx, Methods for the chemical analysis of meat and meat products*

*CAC/RCP 58 Code of Hygienic Practice for Meat*

*ISO/TS 20224 Molecular biomarker analysis — Detection of animal derived materials in foodstuffs and feedstuffs by real time PCR: All parts*

*ISO 936:1998 Meat and meat products — Determination of total ash*

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

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

### **3 Terms and definitions**

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

#### **3.1**

##### **meat**

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

#### **3.2**

##### **ground meat**

boneless meat that has been reduced into particles

#### **3.3**

##### **meat content**

permissible amount of meat together with fats and connective tissue for a particular species

#### **3.4**

##### **fat content**

amount of fat permissible in a meat mixture for a particular species

#### **3.5**

##### **patties**

disc-like meat products formed from ground meat

#### **3.6**

##### **fillers**

these are mostly plant substances, low in protein and high in carbohydrates that are used in increasing the product volume

#### **3.7**

##### **binders**

agents that are mixed homogeneously in the processing to help in the structural consistency of the meat product

### **4 Requirements**

#### **4.1 General requirements**

4.1.1 The meat from which the product is prepared shall be of a quality suitable for human consumption and free from objectionable odours.

4.1.2 The product shall be prepared, handled and delivered under hygienic conditions.

4.1.3 The product shall be prepared in a facility complying with EAS 39.

## 4.2 Raw material requirements

### 4.2.1 Meat

Meat shall be derived from food animals slaughtered in a hygienically managed slaughter house complying with CAC/RCP 58-2005

### 4.2.2 Optional Ingredients

All optional ingredients used shall be of food grade quality and comply with applicable EAS Standards.

#### 4.2.2.1 Fillers and binders

These include:

Carbohydrates such as but not limited to meal, flour or starch prepared from grain, potato or sweet potato; bread, biscuit rusk or bakery products.

- a) Proteins such as milk powder, skim milk powder, butter milk powder, caseinate, whey powder, egg protein, dried blood products, vegetable protein products.
- b) Sugars such as Sucrose, fructose, dextrose (glucose), lactose, maltose, glucose syrup (including corn syrup).
- c) Spices, seasonings and condiments complying with respective East African Standards.
- d) Salt complying with EAS 35.
- e) Water complying with EAS 12

## 5 Essential composition and quality requirements

Fresh coarsely ground meat products shall comply with the requirements given in Table 1 when tested in accordance with the methods given therein.

**Table 1 — Compositional requirements for fresh coarsely ground meat products**

S/N	Characteristic	Limit for final product (raw), %	Test method
	Total meat content, min <sup>a</sup> .	50	AOAC 2011.04
	Fat content, max.	30	ISO 1443
	Total ash, max.	3.0	ISO 936
Note: <sup>a</sup> Protein analytical data can be used to calculate the apparent total meat content of meat products.			



## 6 Hygiene requirements

Raw ground meat products shall be produced, processed, handled, and stored in accordance with the appropriate sections of CAC/RCP 58 and EAS 39

## 7 Safety requirements

### 7.1 Microbiological limits

raw ground meat products shall comply with the microbiological requirements given in Table 2 when tested in accordance with the methods given therein.

**Table 2 — Microbiological limits for raw ground meat products**

S/N	Micro-organism	Max. limit	Test method
	Total viable count, CFU/g	<10 <sup>6</sup>	ISO 4833
	<i>Escherichia coli</i> O157:H7 in 25 g	Absent	ISO 16654
	<i>Staphylococcus aureus</i> , CFU/ g	10 <sup>3</sup>	ISO 6888-1
	<i>Salmonella ssp</i> in 25 g	Absent	ISO 6579-1
	<i>Listeria monocytogenes</i> in 25 g	Absent	ISO 11290-1
	Campylobacter <sup>a</sup> in 25 g	Absent	ISO 10272-2
<sup>a</sup> for poultry products.			

## 8 Pesticides and veterinary drug residues

### 8.1 Veterinary drug residues

The products covered by this standard shall comply with the maximum residue limits specified in CAC/MRL 2

### 8.2 Pesticide residues

raw ground meat products shall comply with the maximum residue limits set by Codex Alimentarius Commission.

## 9 heavy metal contaminants

raw ground meat products shall not contain heavy metal contaminants in excess of the limits given in Table 3 when tested in accordance with the methods mentioned therein.

**Table 3 — Limits of heavy metal contaminants for raw ground meat products**

S/N	Contaminant	Maximum limit, ppm	Test method
	Arsenic (Ar)	0.1	ISO 17294-2
	Lead (Pb)	0.1	ISO 6633
	Cadmium (Cd)	0.05	ISO 5961
	Mercury (Hg)	0.03	ISO 6637

## 10 Meat identification

The identification/isolation of meat species shall be done according to ISO/TS 20224: all parts

## 11 Packaging

11.1 Packaging shall be done in food-grade packaging materials that protect the product from any physical, microbiological, chemical or any other type of contamination during handling, storage and distribution.

11.2 The packages shall be able to withstand the rigors of handling and transportation and shall not be exposed to direct sun or rain.

11.3 For the burgers, food-grade separators shall be used in the layer packing of patties.

## 12 Labelling

Labelling of packages shall be done in accordance with the requirements stipulated in EAS 38, and shall include the following:

- a) description /name of the product as appropriate;
- b) list of ingredients;
- c) allergens declaration;
- d) name, location and address of manufacturer;
- e) net weight, in metric units;
- f) declaration as “raw” product;
- g) species of animal from which the meat has been observed
- h) declaration of minimum meat content by %;
- i) date of production/manufacture;
- j) Best before date
- k) batch number;
- l) instructions for use (shall inform the end-user to cook the product for recommended period of time before consumption);
- m) storage conditions and temperature of storage; and
- n) country of origin

### **13 Sampling**

Sampling shall be carried out in accordance with CAC/GL 50. For microbial analysis samples shall be carried out in accordance with ISO/TS 17728.

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