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ICS XXXXXX

## DRAFT EAST AFRICAN STANDARD

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Meat grades and meat cuts — Specification — Part 3: Pork

## 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 and meat products.

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## Meat grades and meat cuts — Specification — Part 3: Pork

### 1 Scope

This Draft East African Standard specifies grading of pork, quality requirements, safety requirement and methods of sampling and test for pork carcasses and cuts meant 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.

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

ISO 22000c, *Food safety management systems - Requirements for any organization in the food chain*

EAS 151, *Hazard analysis critical control points (HACCP)*

CAC/MRL 2, *Maximum Residue Limits for Veterinary Drugs in Food*

EAS 38, *Labelling of pre-packaged foods*

ISO 4832, *Microbiology of food and animal feeding stuffs -- Horizontal method for the enumeration of coliforms — Colony-count technique.*

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

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

CAC/RCP 58-2005, *Codex code of hygienic practice for meat.*

EAS 12, *Specification for potable water*

ISO 17604, *Microbiology of food and animal feeding stuffs- carcass sampling*

ISO/TS 17728, *Microbiology of food and animal feeding stuffs- sampling techniques for microbiological analysis of foods and feeds.*

ISO 16654, *Microbiology of food and animal feeding stuffs- Horizontal method for the detection of Escherichia coli 0157:H7*

### 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 Pork

meat derived from pig (*Sus scrofa domesticus*)

#### 3.2 Carcass

body of any slaughtered animal after bleeding and dressing.

#### 3.3 Dressed

removal of viscera, genitals, urinary bladder and udder of lactating pigs that have farrowed and/or are in advanced pregnancy and where necessary halving of the carcass.

#### 3.4 Splitting

dividing the carcass lengthwise into two sides.

#### 3.5 Conformation

overall thickness of muscle and fat in relation to the size of the animal's skeleton, i.e. the "shape" of the carcass profile and degree of muscularity.

#### 3.6 Eating quality

refers to the organoleptic factors influencing consumer acceptance and enjoyment of the product. The main eating quality attributes of meat are tenderness, succulence, flavor (taste and aroma).

#### 3.7 Carcass weight

weight (kg) of the dressed body of an animal at the end of the slaughter line.

##### 3.7.1 Hot dressed weight (HDW)

weight (kg) of (carcass) at the end of the slaughter line within one hour of slaughter.

##### 3.7.2 Cold dressed carcass weight (CDW)

weight of the carcass following chilling

#### 3.8 Primal cuts

piece of meat initially separated from the carcass of an animal during butchering. These are basic sections from which steaks and other subdivisions are cut.

#### 3.9 Prime cuts

cuts that are considered to be high quality.

## 4 Grading specifications

### 4.1 Criteria for grading of carcasses

Pork to be graded shall be of the following characteristics;

#### 4.1.1 Conformation

The shoulder and jowl shall be light and the loin full and deep, the back shall appear to be excessively long. The ham shall be broad, well-fleshed to the hock, showing a fine hone and U-shaped in the space between the legs. Bone formation shall be light, flat and pinkish in colour.

#### 4.1.2 Finish

This refers to the quality of fat laid down. The quantity of internal and external fat shall be such as to require no trimming. The cut sternum shall show the predominance of lean over fat. When cut through, the amount of fat at the last rib shall not be excessive. The fat shall be white, dry and firm to the touch.

#### 4.1.3 Quality

The rind shall be free from wrinkles, scores, stabs, fighting scars and hair. It shall have an attractive colour and shall not be unduly dry. The colour of the flesh shall be bright, sappy and attractive pink.

## 5 Grading categories

5.1 Suckling pig – age: less than 8 weeks old

5.2 Porkers – weight: 40-55kg, age: 4-6 months

5.3 Baconers – shall be of the following two grades:

**Table 1: Grading Categories**

	<b>Age</b>	<b>DKSW</b>	<b>Back fat</b>
<b>Grade 1</b>	max 7 months	60-75 kg	8-10 mm
<b>Grade 2</b>	max 7 months	56-75 kg	All fat levels

5.4 Commercial – all eligible slaughter stock

## 6 Pork carcasses and cuts

6.1 Pork carcasses shall be properly dressed, washed, butchered, trimmed, weighed, properly packaged and labelled and shall be free from bruises or blemishes of any kind.

### 6.1.1 Temperature treatment

Pork carcasses and cuts shall be subjected to the following temperature treatment.

#### 6.1.1.1 Chilling

Fresh pork carcasses sides or cuts shall be brought to a temperature of between 1 °C and 3 °C within 24 hours. Carcasses and cuts meant for chilling shall be further chilled to temperatures of -2 °C to 4 °C and should be consumed within a period of 4 weeks.



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### **6.1.1.2 Freezing and storage**

The pork carcasses sides or cuts shall be pre-chilled before freezing. Freezing shall be at minus (-) 18 °C and (-) 12 °C at the highest, within three days. The pork carcasses and cuts shall be stored at (-) 12 °C at the highest. The frozen product shall be consumed within 12 months.

**6.2** Pork carcass and cuts may be presented according to the following in relation to temperature treatment.

#### **6.2.1 Fresh Carcass**

The deepest part of the carcass near the bone shall be cooled to the atmospheric temperature when delivered and shall show no evidence of deterioration.

#### **6.2.2 Fresh, Chilled Carcass**

The carcass shall be chilled so that the temperature at the deepest portion of the flesh near the bone shall be -2°C to 4 °C and shall show no evidence of deterioration.

#### **6.2.3 Fresh, Frozen Carcass**

The pork shall be quick frozen preferably at a temperature of -18°C in the minimum possible time and shall show no evidence of deterioration, such as dehydration, oxidative rancidity and advanced changes in texture.

#### **6.2.4 Pork Cuts, Fresh**

These shall be prepared from carcasses which conform to the requirements given in **6.2.1**

#### **6.2.5 Pork Cuts, Fresh, Chilled**

These shall be the same as fresh (see 9.2.2) except that they shall be prepared from carcasses which conform to the requirements given in **9.2.1**.

#### **6.2.6 Pork Cuts, Fresh, Frozen**

These shall be the same as chilled except that the pork shall be frozen solid when delivered and shall show no evidence of thawing and refreezing or deterioration.

## **7 General requirement**

**7.1** Animals from which pork is derived shall be slaughtered in a hygienically managed slaughter-house in accordance with CAC/RCP 58. The slaughter shall be supervised by a competent authority. The ovine animals and carcasses thereof shall be subjected to ante mortem and post mortem veterinary inspection as prescribed in CAC/RCP 58 and pork carcasses and cuts thereof shall be certified as being sound and free from contagious and infectious diseases and fit for human consumption.

**7.2** The certified carcasses shall bear an approval marks of such inspection, the symbol or number or name of the establishment or slaughter house where they were prepared and the legend "PASSED" denoting wholesomeness and denoting the grade or quality. The marking fluid used shall be of food grade.

**7.3** The pork shall be prepared in a plant which is regularly operated under supervision of the relevant competent authority. The mutton and lamb shall be prepared, handled fresh or chilled or frozen and then delivered fresh or chilled or frozen, under hygienic conditions.

**7.4** Pork carcasses and cuts shall be;

- a) Intact, taking into account the presentation;

- b) Free from visible blood clots, or bone dust;
- c) Free from any visible foreign matter (e.g. dirt, wood, plastic, metal particles)
- d) Free of offensive odours;
- e) Free of obtrusive bloodstains;
- f) Free of unspecified protruding or broken bones;
- g) Free of contusions having a material impact on the product ;
- h) Free from freezer-burns; and
- i) Free from hair.

## 8 Hygiene

Pork shall be produced, handled and stored in accordance with CAC/RCP 58 and EAS 39.

## 9 Microbiological limits

Pork cuts shall comply with the microbiological limits in Table 2, when tested in accordance with the test methods specified therein.

**Table 2 — Microbiological limits for pork carcasses and cuts**

S/No.	Micro-organism	Limit	Test method
i.	Aerobic colony count, cfu/g, max.	$10^6$	ISO 4833-1
ii.	E. coli, cfu/ g, max.	$10^3$	ISO 16649-2
iii.	<i>Coagulase positive Staphylococcus aureus</i> , cfu/g, max	$10^2$	ISO 6888-1
iv.	<i>Salmonella</i> spp. per 25 g	Absent	ISO 6579
v.	Enterobacteraceae, cfu/g, max.	$10^3$	ISO 21528-2
vi.	<i>Listeria monocytogenes</i> per 25 g	Absent	ISO 11290-1

## 10 Contaminants

### 10.1 Veterinary drug residues

Pork shall have a maximum Residual limit for veterinary drugs in accordance with CAC/MRL- 2.

### 10.2 Pesticide residues

Pork shall have a maximum pesticide residues limit as in accordance with Codex Alimentarius standards.

## 11 Heavy metals

Pork shall not contain heavy metals in excess of the limits given in Table 3 when tested in accordance with the test methods specified therein.

**Table 3 — Heavy metal limits for pork cuts**

<b>S/No.</b>	<b>Contaminants</b>	<b>Maximum limit ppm</b>	<b>Test method</b>
i	Arsenic (As)	0.1	ISO 17294-2
ii	Lead (Pb)	0.1	ISO 6633
iii	Cadmium (Cd)	0.05	ISO 5961
iv	Mercury (Hg)	0.03	ISO 6637

## 12 Packaging

Fresh, chilled and frozen products shall be packaged in suitable food grade materials which will safeguard the hygienic, nutritional, technological and organoleptic properties of the product.

## 13 Labelling

Labelling of pork carcasses and cuts packages shall be done in accordance with the requirements stipulated in EAS 38. In addition, the following particulars shall be legibly and indelibly labelled on the container;

- a. Name of the product (as appropriate);
- b. Name, location and address of manufacturer;
- c. Net weight, in g or kg;
- d. Date of production/packaging;
- e. Expiry date;
- f. Batch number;
- g. Storage conditions;
- h. Country of origin
- i. Approval veterinary mark for carcasses and cuts

## 14 Sampling

Samples shall be taken in accordance with the provisions of ISO/TS 17728.

