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FINAL DRAFT EAST AFRICAN STANDARD

Fish sausages — Specification

EAST AFRICAN COMMUNITY

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East African Community
P.O.Box 1096
Arusha
Tanzania
Tel: 255 27 2504253/8
Fax: 255 27 2504481/2504255
E-mail: eac@eachq.org
Web: www.eac-quality.net

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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.

FDEAS 871 was prepared by Technical Committee EASC/TC 003, *Fish and fishery products*.

Fish sausages — Specification

1 Scope

This Final Draft East African Standard specifies requirements, sampling and test methods for fish sausages intended for human consumption.

This standard applies to fresh fish sausage, smoked fish sausage, dried fish sausage and fermented fish sausage.

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 928.07, *Water (added) in sausage. Procedure*

AOAC 948.15, *Fat (crude) in seafood. Acid hydrolysis method.*

AOAC 952.13, *Arsenic in food — Silver diethyldithiocarbamate method*

AOAC 972.23, *Lead in fish — Atomic absorption spectrophotometric method*

AOAC 973.34, *Cadmium in food — Atomic absorption spectrophotometric method*

AOAC 981.10, *Protein in raw and processed meats*

AOAC 983.20, *Mercury (methyl) in fish and shellfish — Gas chromatographic method*

CAC/GL 50, *General guidelines on sampling*

CAC/RCP 52, *Code of practice for fish and fishery products*

CODEX STAN 192, *General standard for food additives*

EAS 12, *Drinking (potable water) — Specification*

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

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

EAS 321, *Edible fats and oil (General) — Specification*

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

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

ISO 6888 (all parts), *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 7937, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of Clostridium perfringens — Colony-count technique*

ISO 11290 (all parts), *Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of Listeria monocytogenes*

ISO 16649-3, *Microbiology of the food chain — Horizontal method for the enumeration of beta-glucuronidase-positive Escherichia coli — Part 3: Detection and most probable number technique using 5-bromo-4-chloro-3-indolyl- β -D-glucuronide*

ISO/TS 21872 (all parts), *Microbiology of food and animal feeding stuffs — Horizontal method for the detection of potentially enteropathogenic Vibrio spp.*

3 Terms and definitions

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

- 3.1 fish sausage**
product obtained by stuffing fish meat in casings and which may be fresh, fermented, cooked and/or smoked
- 3.2 fish meat**
parts of fish that are safe and suitable for human consumption
- 3.3 minced fish meat**
boneless fish meat that has been reduced into fragments/particles
- 3.4 fish meat preparations**
fresh fish meat, including minced fish meat which has had foodstuffs, seasonings or additives added to it
- 3.5 casing**
natural or artificial materials used to hold and protect fish meat
- 3.6 filler/binder**
sausage builders for holding all components together in the sausage paste leaving sausage characteristics pronounced
- 3.7 fish meat content**
total amount of fish meat and fish fat in the fish sausage
- 3.8 fresh/raw fish sausages**
fish sausages made from fish meat that require chilling or freezing and thorough cooking before eating
- 3.9 cooked fish sausages**
fish sausages made with fresh fish meat and then fully cooked, intended to be either eaten immediately after cooking or refrigerated

3.10

smoked fish sausages

fish sausages that are smoked

3.11

dry fish sausages

fresh fish sausages that are dried and require thorough cooking before eating

3.12

fermented fish sausages

fish sausages that have undergone fermentation and curing and require thorough cooking before eating

3.13

food grade 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

3.14

foreign matter

any undesirable material which is not of fish origin such as sand, stones and metallic chips

4 Requirements

4.1 General requirements

4.1.1 Fish meat shall be obtained from fish that meets the requirements for fresh or frozen fish complying with the relevant East Africa standards.

4.1.2 Fish meat shall be free from foreign odour/flavour, discolouration and deterioration, bones, scales and other extraneous matter.

4.1.3 Water used in the preparation of fish sausages shall comply with EAS 12.

4.1.4 Fat used in the preparation of fish sausage shall comply with EAS 321.

4.1.5 Filler/binder materials such as cereal rusks, flour or other ingredients to be used as shall comply with the relevant East Africa standards.

4.1.6 Natural or artificial casing used in the preparation of fish sausage shall be food grade and free from contamination.

4.1.7 Optional ingredients such as spices, condiments, seasonings, sucrose complying with the relevant standards may be used in preparation of fish sausages.

4.1.8 The product shall have characteristic colour, texture and free from off flavour and odour and foreign matter.

4.2 Specific requirements

4.2.1 Smoked fish sausage shall be prepared from fresh fish sausage. Smoking shall be done using wood or other plant material free from toxic substances.

4.2.2 The product shall comply with the requirements given in Table 1 when tested in accordance with the methods specified therein.

Table 1 — Quality requirements for fish sausages

Parameter	Fresh fish sausage	Smoked fish sausage	Dried fish sausage	Fermented fish sausage	Test method
Fish meat content % by mass, min.	60	60	60	60	AOAC 981.10
Fat content % by mass, max.	30	30	30	30	AOAC 948.15
Added water, %, max.	10	10	5	10	AOAC 928.07

5 Food additives

Food additives may be used in the preparation of fish sausage in accordance with CODEX STAN 192.

6 Hygiene

The product shall be prepared and handled in accordance with EAS 39 and CAC/RCP 52 and shall comply with microbiological limits given in Table 2.

Table 1 — Microbiological limits for fish sausages

S/No.	Parameters	Microbiological limit		Test method
		Fresh sausages	Other types ^b	
1	Total viable count, CFU/g, max.	10 ⁵	10 ²	ISO 4833-1
2	<i>Escherichia coli</i> , ^a MPN/g,	Absent	Absent	ISO 16649-3
3	<i>Salmonella Spp.</i> in 25 g	Absent	Absent	ISO 6579
4	Coagulase positive Staphylococci, CFU/g, max.	10 ³	10	ISO 6888
5	<i>Listeria monocytogenes</i> , CFU/g	Absent	Absent	ISO 11290
6	<i>Clostridium perfringens</i> , CFU/g	Absent	Absent	ISO 7937
7	<i>Vibrio spp</i> per 25 g	Absent	Absent	ISO/TS 21872

^a *E. coli* is used here as an indicator of faecal contamination

^b Other types refers to smoked, fermented and dried fish sausages.

7 Contaminants

7.1 Heavy metals

The product shall comply with the heavy metal limits given in Table 3.

Table 3 — Heavy metal limits for fish sausages

S/No	Heavy metal	Maximum limit, mg/kg	Test method
i)	Arsenic	0.1	AOAC 952.13
ii)	Lead	0.3	AOAC 972.23
iii)	Cadmium	0.3	AOAC 973.34
iv)	Methyl mercury	0.5	AOAC 983.20

7.2 Pesticide and veterinary drug residues

The product shall comply with the maximum residual limits for pesticides and veterinary drug residues established by the Codex Alimentarius Commission.

8 Weights and measures

The weight of the product shall comply with Weights and Measures regulations of Partner States.

9 Packaging

The product shall be packed in containers made from food grade materials which will safeguard the hygienic, nutritional, technological, and organoleptic qualities of the product. The package shall not impart any toxic substance or undesirable odour or flavour to the product.

10 Labelling

In addition to the requirements in EAS 38, the following specific labelling requirements shall apply and shall be legibly and indelibly marked:

- a) name of the product as “Fish sausage” including the fish species used shall be declared;
- b) a declaration of the type of casing (natural or artificial) and the type of binders;
- c) form of presentation that is, Fresh fish sausage, Smoked fish sausage, Dried fish sausage and Fermented fish sausage;
- d) name and physical address of processor;
- e) net weight in grams or kilograms;
- f) date of production;
- g) batch number;
- h) expiry date;
- i) storage condition;

- j) instruction for use; and
- k) country of origin.

11 Sampling

Sampling shall be done in accordance with CAC/GL 50.

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Bibliography

KS 59-1:2013, *Sausages — Specification — Part 1: Raw or cooked red meat sausages*

KS 59-2:2013, *Sausages — Specification — Part 2: Raw or cooked poultry sausages*

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