



DRAFT EAST AFRICAN STANDARD

**Frozen fish sticks (fish fingers), fish portions and fish fillets —
Breaded or in batter — Specification**

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EAST AFRICAN COMMUNITY

Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in East Africa. It is envisaged that through harmonized standardization, trade barriers which are encountered when goods and services are exchanged within the Community will be removed.

In order to meet the above objectives, the EAC Partner States have enacted an East African Standardization, Quality Assurance, Metrology and Test Act, 2006 (EAC SQMT Act, 2006) to make provisions for ensuring standardization, quality assurance, metrology and testing of products produced or originating in a third country and traded in the Community in order to facilitate industrial development and trade as well as helping to protect the health and safety of society and the environment in the Community.

East African Standards are formulated in accordance with the procedures established by the East African Standards Committee. The East African Standards Committee is established under the provisions of Article 4 of the EAC SQMT Act, 2006. 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.

Article 15(1) of the EAC SQMT Act, 2006 provides that "Within six months of the declaration of an East African Standard, the Partner States shall adopt, without deviation from the approved text of the standard, the East African Standard as a national standard and withdraw any existing national standard with similar scope and purpose".

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.

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Frozen fish sticks (fish fingers), fish portions and fish fillets — Breaded or in batter — Specification

1 Scope

This draft East Africa draft standard specifies requirements and methods of sampling and test for frozen fish sticks (fish fingers), fish portions and fish fillets-breaded or in batter 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.

CODEX STAN 192, *General standard for food additives*

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

CAC/RCP 52[CD/K/521:2010], *Code of practice for fish and fishery products*

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

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

EAS 103, *Schedule for permitted food additives*

ISO 4833, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of microorganisms — Colony-count technique at 30 degrees C*

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 6888-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) — Part 2: Technique using rabbit plasma fibrinogen agar medium*

ISO 6888-3, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) — Part 3: Detection and MPN technique for low numbers*

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 11290-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of Listeria monocytogenes — Part 2: Enumeration method*

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

ISO 27085, *Animal feeding stuffs -- Determination of calcium, sodium, phosphorus, magnesium, potassium, iron, zinc, copper, manganese, cobalt, molybdenum, arsenic, lead and cadmium by ICP-AES*

ISO 16050, *Foodstuffs — Determination of aflatoxin B₁, and the total content of aflatoxin B₁, B₂, G₁ and G₂ in cereals, nuts and derived products — High performance liquid chromatographic method*

ISO 21527-1, *Microbiology of food and animal feeding stuffs -- Horizontal method for the enumeration of yeasts and moulds -- Part 1: Colony count technique in products with water activity greater than 0.9*

AOAC 990.04 Mercury (Methyl) in seafood by liquid chromatography-atomic absorption spectroscopy (LC-AAS)

AOAC 977.15 / 974.14, Mercury in fish by flame atomic absorption spectroscopy (FAAS)

3 Terms and definitions

3.1

fish stick (fish finger)

the product including the coating weighing not less than 20 g and not more than 50 g shaped so that the length is not less than three times the greatest width. Each stick shall be not less than 10 mm thick.

3.2

fish portion

including the coating, other than products stipulated under 3.1, may be of any shape, weight or size.

3.3

fillets

slices of fish of irregular size and shape which are removed from the carcass by cuts made parallel to the back bone and pieces of such fillets, with or without the skin.

3.4

batter

liquid preparation from ground cereals, spices, salt, sugar and other ingredients and/or additives for coating. Typical batter types are non-leavened batter and leavened batter.

3.5

breeding

dry breadcrumbs or other dry preparations mainly from cereals with colourants and other ingredients used for the final coating of fishery products. Breeding types are free flowing breeding, coarse breeding and flour type breeding.

3.6

coating

covering the surface of a fishery product with batter and/or breeding

4 Requirements

4.1 General requirements

4.1.1 Frozen breaded or battered fish sticks (fish fingers) breaded or battered fish portions and breaded or battered fillets shall be prepared from fish fillets that conforms to DEAS 827:2014 or minced fish flesh, or mixtures thereof, of edible species which are of a quality such as to be sold fresh for human consumption

4.1.2 The coating and all ingredients used therein shall be of food grade quality and conform to relevant codex or east Africa standards.

4.1.3 Fat or oil used in cooking operation shall be suitable for human consumption and conform to relevant east Africa or codex standard.

4.1.4 The product shall be free from foreign matter

4.1.5 The product shall not have objectionable odour and flavours

4.1.6 Water used for washing the fish shall comply with EAS 12.

4.2 Specific requirements

4.2.1 The products shall not contain more than 10 mg/100 g of histamine based on the average of the sample unit tested. This shall apply only to species of *Clupeidae*, *Scombridae*, *Scombresocidae*, *Pomatomidae* and *Coryphaenidae* families.

4.2.2 The frozen fish sticks (fish fingers), fish portions and fish fillets — Breaded or in batter shall have a temperature of -18°C

5 Hygiene

The product covered by the provisions of this standard shall be prepared and handled in accordance with, EAS 39 and shall comply with microbiological limits given in table 1:

Table 1 — Microbiological limits for frozen fish sticks (fish fingers), fish portions and fish fillets — Breaded or in batter

S/No	Micro-organisms	Max. limits	Methods of test
i	<i>Salmonella</i> per 25 g	Absent	ISO 6579
ii	<i>E. coli</i> per gram	absent	ISO 7251
iii	<i>Shigella</i> per gram	Absent	ISO 21567
iv	<i>listeria monocytogenes</i>	absent	ISO 11290 PART 1 &2
v	<i>Staphylococcus aureus</i> cfu per gram	100	ISO 6888
vi	<i>Clostridium perfringens</i> per gram	Absent	ISO 7937
vii	<i>Vibrio Spp</i> per gram	Absent	ISO 21872
viii	Total viable count per gram	10 ⁵	ISO 4833
ix	Yeast and mould	10 ²	ISO 21527-1

6 Contaminant

Frozen fish sticks (fish fingers), fish portions and fish fillets — Breaded or in batter shall comply with the contaminant limits given in table 2.

Table 2 — Contaminant limits for frozen fish sticks (fish fingers), fish portions and fish fillets — Breaded or in batter

S/No	Type of contaminant	Maximum limit (mg/kg)	Methods of test
i	Arsenic	0.1	ISO 27085
ii	Mercury	0.5	AOAC 977.15/974.14
iii	Lead	0.3	ISO 27085
iv	Cadmium	0.3	ISO 27085
v	Methyl mercury	0.5	AOAC 990.04

7 Food additive

Permitted additives may be used in the processing of frozen fish sticks (fish fingers), fish portions and fish fillets — Breaded or in batter in accordance with CODEX STAN 192.

8 Weight and measures

The weight of the product shall comply with Weight and Measures regulations of Partner States or equivalent legislation

9 Packaging and labelling

9.1 Packaging

9.1.1 Frozen fish sticks (fish fingers), fish portions and fish fillets — Breaded or in batter shall be packaged in food grade containers which will safeguard the hygienic, nutritional, and organoleptic qualities of the product.

9.1.2 The containers, including packaging material, shall be made of substances which are safe and suitable for their intended use. They shall not impart any toxic substance or undesirable odour or flavour to the product.

9.2 Labelling

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

- Name of the product shall be "... "breaded" and/or "battered", "fish sticks" (fish fingers), "fish portions", or "fillets"
- Storage and transportation conditions declaring the temperature to be -18C or lower
- Name and physical address of processor or packer
- Net weight in grams or kilograms
- Date of production or packaging
- Batch or code number
- Expiry date
- Instruction for use
- Country of origin

9.3 Labelling of Non-retail Containers

9.3.1 Information on the above provisions shall be given either on the container or in accompanying documents, except that the name of the product, lot identification, and the name and address of the processor or packer as well as storage instructions, shall appear on the container.

9.3.2 However, lot identification, and the name and address of the processor or packer may be replaced by an identification mark provided that such a mark is clearly identifiable with the accompanying documents.

10 Methods of sampling and test

Sampling and tests shall be done as per test methods described in respective tables.

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