



## **DRAFT EAST AFRICAN STANDARD**

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**Fat spreads and blended spreads — 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 015, *Oilseeds, edible fats and oils*.

This third edition cancels and replaces the second edition (EAS 14: 2018), which has been technically revised.

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.

## Fat spreads and blended spreads — Specification

### 1 Scope

This draft East African Standard specifies requirements, sampling and test methods for fat spreads and blended spreads.

It does not apply to fat spreads derived exclusively from milk and/or milk products to which only other substances necessary for their manufacture have been added such as butter and dairy spreads

### 2 Normative references

The following documents are referred to in the text in such a way that some or all 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.

AOAC 952.13, *Arsenic in food. Silver diethyldithiocarbamate*

AOAC 990.27, *Butyric acid in fats containing butterfat. Gas chromatographic method*

AOAC 2001.13, *Determination of Vitamin A (Retinol) in food — Liquid Chromatography*

CXS 192, *General Standard for Food Additives*

EAS 38, *Labelling of prepackaged foods — General requirements*

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

EAS 804, *Claims — General requirements*

EAS 805, *Use of nutrition and health claims — Requirements*

ISO 661, *Animal and vegetable fats and oils — Preparation of test sample*

ISO 1738, *Butter — Determination of salt content*

ISO 3960, *Animal and vegetable fats and oils — Determination of peroxide value*

ISO 5555, *Animal and vegetable fats and oils — Sampling*

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

ISO 9936, *Animal and vegetable fats and oils — Determination of tocopherol and tocotrienol contents by high-performance liquid chromatography*

ISO 12193, *Animal and vegetable fats and oils — Determination of lead by direct graphite furnace atomic absorption spectroscopy*

ISO 17189, *Butter, edible oil emulsions and spreadable fats — Determination of fat content (Reference method)*

ISO 21527-1, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration yeasts and moulds — Part 1: Colony-count technique in products with water activity greater than 0,95*

### 3 Terms and definitions

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

#### 3.1 fat spreads

fluid emulsion composed of a mixture of edible fats or oils and water, that does not contain milk fat or contains low percentage of milk fat, mainly intended to be used for the purposes of spreading to other foods

NOTE 1: Fat spreads with a total fat content of 80% and above may be referred to as margarine.

#### 3.2 blended spreads

fluid emulsion composed of a mixture of edible fats or oils and water, that contains a high percentage of milk fat, mainly intended to be used for the purposes of spreading to other foods

#### 3.3 edible fats and oils

foodstuffs composed of glycerides of fatty acids of vegetable, animal or marine origin, hydrogenated or otherwise. They may contain small amounts of other lipids such as phosphatides, of unsaponifiable constituents and of free fatty acids naturally present in the fat or oil

#### 3.4 modified oils

oils in which all or part which have undergone inter-esterification, hardening, fractional crystallization or any other acceptable technological changes

#### 3.5 food grade packaging material

packaging material, made of substances which are safe and suitable for the intended use, and which will not impart any toxic substance or undesirable odour or flavour to the product

### 4 Requirements

#### 4.1 Ingredients

4.1.1 The ingredients shall include edible fats and/or oils, or mixtures of these (modified or not) complying with the relevant East Africa Standards for fats and oils

4.1.2 Optional ingredients such as vitamins, salt, proteins, food additives, water and/or milk and/or milk products, antioxidants complying with relevant standards may be used.

#### 4.2 General requirements

Fat spreads and blended spreads shall:

- a) be free from foreign and extraneous matter
- b) be homogenous and suitable for spreading; and
- c) not have bitter taste or rancid odour characteristic of spoilage.

### 4.3 Specific requirements

Fat spreads and blended spreads shall comply with the specific requirements given in Table 1 when tested in accordance with test methods specified therein:

**Table 1 — Specific requirements for fat spreads and blended spreads**

S/N	Characteristic		Requirement	Test method
i.	Total fat matter, % m/m.	Margarine and blends	$X \geq 80^a$	ISO 17189
		Fat spreads and blended spreads	$10 < X < 80^b$	
ii.	Milk fat content, %	Fat spreads	$Y < 3^c$	AOAC 990.27
		Blended spreads	$3 < Y < 10^d$	
iii.	Peroxide value, mEq peroxide-oxygen/kg, max.		10	ISO 3960
iv.	Sodium chloride, %, m/m, max		3	ISO 1738
<p>NOTE "X" denotes fat content and "Y" denotes milk fat content</p> <p><sup>a</sup> Fat content shall be greater than 80 %.</p> <p><sup>b</sup> Fat content shall be greater than 10 % but less than 80 %.</p> <p><sup>c</sup> Milk fat shall be less than 3 %.</p> <p><sup>d</sup> Milk fat shall be greater than 3 % but less than 10 %.</p>				

## 5 Vitamins

Fat spreads and blended spreads shall comply with 20-40 mg/kg (as retinol) levels of vitamin A when tested in accordance with AOAC 2001.13

## 6 Food additives

Fat spreads and blended spreads may contain only the permitted food additives in the CXS 192.

## 7 Contaminants

### 7.1 Pesticide residues

Fat spreads and blended spreads shall comply with those maximum pesticide residue limits established by the Codex Alimentarius Commission for this commodity.

### 7.2 Heavy metal contaminants

Fat spreads and blended spreads shall comply with the maximum limits of heavy metals as specified in Table 2 when tested in accordance with the test methods therein.



**Table 2 — Limits for heavy metal contaminants in fat spreads and blended spreads**

S/N	Contaminant	Maximum limit mg/kg	Test method
i.	Lead (Pb)	0.1	ISO 12193
ii.	Arsenic (As)	0.1	AOAC 952.13

## 8 Hygiene

**8.1** Fat spreads and blended spreads shall be produced, processed, handled and stored in accordance with EAS 39

**8.2** Fat spreads and blended spreads shall comply with those maximum limits specified in Table 3 when tested in accordance with the methods specified therein:

**Table 3 — Microbiological limits for fat spreads and blended spreads**

S/N	Micro-organism	Maximum limit	Test method
(i)	<i>Salmonella spp.</i> , cfu/25 g	Shall be absent	ISO 6579-1
(ii)	<i>Escherichia coli</i> , MPN/g	Shall be absent	ISO 7251
(iii)	<i>Staphylococcus aureus</i> , cfu/g	Shall be absent	ISO 6888-1
(iv)	Yeasts and moulds, cfu/g	10 <sup>2</sup>	ISO 21527-1

## 9 Packaging

Fat spreads and blended spreads shall be packaged in containers made from food grade packaging material and sealed in a manner that will safeguard the hygienic, nutritional and organoleptic properties throughout the shelf life of the product

## 10 Labelling

**10.1** In addition to the labelling requirements specified in EAS 38, the name of the product shall be:

- a) "Fat spread"
- b) "Blended spread"; or
- c) "Margarine"

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**10.2** Where health and nutrition claim is applied, it shall comply with EAS 804 and EAS 805.

## 11 Sampling

Sampling and sample preparation for test shall be done in accordance with ISO 5555 and ISO 661 respectively.

## Bibliography

[1]

[2]

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