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**Blended ice cream — Specification**



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This African Standard was prepared by ARSO TC 04: Milk and milk products.

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## Blended ice cream — Specification

### 1 Scope

This African Standard specifies the requirements, sampling and test methods for blended ice cream intended for direct human consumption or further processing.

### 2 Normative references

The following standards are referred to in the text in such a way that some or all of their content constitutes requirements of this Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced standard (including any amendments) shall be applied.

ARS 53, *General Principles of Food Hygiene – Code of practice*

ARS 56, *Labelling of Prepackaged Foods*

ARS 1034, *Dairy Industry-Glossary of terms*

CXS 192, *General Standard for Food Additives*

CXS 193, *General Standard for Contaminants and Toxins in Food and Feed*

ISO 707, *Milk and milk products — Guidance on 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 the food chain — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) — Part 1: Method using Baird-Parker agar medium*

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 14501, *Milk and milk powder — Determination of aflatoxin M<sub>1</sub> content — Clean-up by immunoaffinity chromatography and determination by high-performance liquid chromatography*

ISO 16649-1, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of beta-glucuronidase-positive Escherichia coli — Part 1: Colony-count technique at 44 degrees C using membranes and 5-bromo-4-chloro-3-indolyl beta-D-glucuronide*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions in ARS 1034 and the following shall apply.

#### **blended ice cream**

frozen food made of homogenized and pasteurized milk, cream or other dairy products, with the addition of vegetable fat & oil, and with or without the addition of fruit, nut or chocolate, either singly or in combination, also sugar or natural sweeteners can be added

### 4 Requirements

#### 4.1 Raw materials

Raw materials and ingredients used shall comply with relevant standards.

#### **4.1.1 Essential raw materials**

- a) Milk and/or products obtained from milk.
- b) Vegetable fat or oil.
- c) Potable water.

#### **4.1.2 Optional raw materials**

- a) Gelatine and starch; provided they are added only in amounts functionally necessary as governed by Good Manufacturing Practice.
- b) Jams/preserves.
- c) Fruit juice, fruit pulp, fruit preparation.
- d) Nuts free from rancidity, insect infestation, damage or contamination may be added to the product.
- e) Fresh or chilled whole eggs or yolks and frozen eggs or yolks may be added to the product.
- f) Cocoa powder or chocolate liquor may be added to the product.
- g) Sugar in the form of sucrose or any other sugars.
- h) Flavoring substances.

#### **4.2 General requirements**

Blended ice cream shall:

- a) have a sweet, frozen dessert;
- b) be uniform, smooth in texture. It shall contain no apparent ice or sugar crystals or fat granules,
- c) have a pleasant odour and a flavour characteristic of it, and
- d) be free from dirt, foreign matter and without off-flavours and textural defects.

#### **4.3 Compositional requirements**

- a) Total solids, grams per litre (min); 28%
- b) Total Fat, per cent per mass (min); 5%

### **5 Food additives**

Food additives may be used in Blended ice cream in accordance with (CXS 192) – 01.7 Dairy-based desserts (e.g. pudding, fruit or flavoured yoghurt).

### **6 Contaminants**

#### **6.1 Heavy metals**

The products covered by this African Standard shall comply with those maximum limits for metal contaminants specified in CXS 193.

#### **6.2 Aflatoxins**

When tested in accordance with ISO 14501, the level of aflatoxin M<sub>1</sub> shall not exceed 0.50 µg/kg.

### 6.3 Pesticides residues

Pesticide residue limits shall be in accordance with limits set by the Codex Alimentarius Commission for the product.

### 6.4 Veterinary drug residues

Veterinary drug residue limits shall be in accordance with limits set by the Codex Alimentarius Commission for the product.

## 7 Hygiene

The products covered by this African Standard shall be produced, prepared and handled in accordance with the provisions of the appropriate sections of ARS 53 and ARS 1036.

Blended ice cream shall be free from microorganisms and products originating from microorganisms in amounts which may represent a hazard to human health.

Blended ice cream shall comply with microbiological limits given in Table 2 when tested in accordance with the test methods specified therein.

**Table 2 — Microbiological limits for blended ice cream**

	Micro-organisms	Sampling plan		Limits		Test method reference	Stage of analysis
		n	c	m	M		
	Salmonella	5	0	Absence in 25 g		ISO 6579-1	On the market during the shelf-life and during handling
	Listeria monocytogenes	5	0	Absence in 25 g		ISO 11290-1	On the market during the shelf-life
	Coagulase-positive staphylococci	5	0	10 cfu/gm	10 <sup>2</sup> cfu/gm	ISO 6888-1	End of the production process
	Enterobacteriaceae	5	1	10 cfu/gm	10 <sup>2</sup> cfu/gm	ISO 21528-2	On the market during the shelf-life
n = number of units comprising the sample c = number of sample units giving values between m and M m = The level of the required MCR in the product M = Value or level of microbial limit not to be reached or greater than in any unit of the sample							

## 8 Packaging

Blended ice cream shall be packaged in suitable food grade containers which will safeguard the hygienic, nutritional, technological, and organoleptic qualities of the product during dispatch, transport and use of the product until the end of its shelf life.

## 9 Labelling

In addition to the provisions of ARS 56 and ARS 1034, the following specific provisions apply:

#### **9.1 Name of the food**

The name of the food shall be blended ice cream, and in case of fruits or other flavoring substances; it could appear with the food name, provided that the product is in conformity with this Standard. Where customary in the country of retail sale, alternative spelling may be used.

#### **9.2 Declaration of milk fat content**

The milk fat content shall be declared in a manner found acceptable in the country of sale to the final consumer, either (i) as a percentage by mass, (ii) as a percentage of fat in dry matter, or (iii) in grams per serving as quantified in the label provided that the number of servings is stated.

#### **9.3 Trans fatty acid**

Trans fatty acids max 2gm/100gm vegetable fat rather than milk fat.

#### **9.4 Labelling of non-retail containers**

Information required in clause 8 of this Standard needed to be complied with the requirements mentioned in the General standard for the labelling of non-retail containers of foods (CXS 346).

### **10 Methods of sampling**

For checking the compliance with this standard, the methods of sampling contained in ISO 707, shall be used.



## **Bibliography**

ES 1185-3 Vegetable fat Ice Cream-Specification

GS 64: 2015 Milk and milk products - Specification for ice cream