
Dairy Ice Cream — Specification



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ARSO Central Secretariat
International House 3rd Floor
P. O. Box 57363 — 00200 City Square
NAIROBI, KENYA

Tel. +254-20-2224561, +254-20-3311641, +254-20-3311608

E-mail: arso@arso-oran.org

Web: www.arso-oran.org

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ARSO Central Secretariat
International House 3rd Floor
P.O. Box 57363 — 00200 City Square
NAIROBI, KENYA

Tel: +254-20-2224561, +254-20-3311641, +254-20-3311608

E-mail: arso@arso-oran.org
Web: www.arso-oran.org

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Dairy Ice Cream — Specification

1 Scope

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

2 Normative references

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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*

ARS 1036, *Code of Hygienic Practice for Milk and Milk Products*

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 3728, *Ice-cream and milk ice — Determination of total solids content (Reference method)*

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 M1 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 given in ARS 1034 and the following shall apply.

dairy ice cream

frozen food made of homogenized and pasteurized milk, cream or other dairy products, with or without the addition of fruit, nut or chocolate, either singly or in combination and 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

Milk and/ or products obtained from milk.

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 sugar.
- h) Permitted Flavoring substances.

4.2 General requirements

Dairy ice cream shall:

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

4.3 Compositional requirements

Dairy ice cream shall meet the compositional requirements given in Table 1 when tested in accordance with the test methods specified therein. Dairy ice cream may be classified as identified in Table 1 and meet the compositional requirements, as shown.

Table 1— Compositional requirements for Dairy ice cream

Characteristics	Requirement		Test method
	Plain ice cream	Fruits, nuts or chocolate ice cream	
Total solids, grams per litre (min)	32	30	ISO 3728
Milk Fat, per cent per mass (min)	5,0	5,0	

5 Food Additives

Food additives may be used in Dairy ice cream in accordance with CXS 192 – 01.7 Dairy-based desserts (e.g. pudding, fruit or flavored 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 M₁ 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.

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

Dairy 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 Dairy ice cream

Food Category	Micro-organisms	Sampling plan		Limits		Test method reference	Stage of analysis
		n	c	m	M		
Dairy Ice Cream	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 ² cfu/gm	ISO 6888-1	On the market during the shelf-life and during handling
	Enterobacteriaceae	5	1	10 cfu/gm	10 ² 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 microbiological criterion required 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

Dairy 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 Dairy ice cream, and in case of fruits or other flavoring substances; it could be appeared 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 Labelling of non-retail containers

Information required in clause 8 of this Standard needed to be complied with the requirements mentioned in 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 1185-1 Ice Cream-Specification

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