

---

**Draft COMESA/East African Standard**

**Dairy ices and dairy ice cream — Specification**

---

**Table of contents**

1	Scope .....	1
2	Normative references .....	1
3	Definitions .....	2
3.1	dairy .....	2
3.2	dairy ice.....	2
3.3	dairy ice cream.....	2
3.4	milk .....	2
4	Requirements.....	2
4.1	Principal ingredients .....	2
4.2	Optional ingredients.....	3
4.5	General requirements .....	3
5	Food additives .....	3
6	Pasteurization .....	3
7	Microbiological limits.....	4
8	Contaminants.....	4
8.1	Heavy metals.....	4
8.2	Pesticide residues .....	4
8.3	Veterinary drug residues .....	4
10	Packaging.....	4
11	Labelling .....	4
12	Sampling.....	5

Foreword

---

## Dairy ices and dairy ice cream — Specification

---

### 1 Scope

This COMESA/East African standard specifies the requirements, sampling and methods of test for dairy ices and dairy ice cream.

### 2 Normative references

The following referenced standards are indispensable for the application of this COMESA/East African Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced standard (including any amendments) applies.

Codex Alimentarius Commission pesticides residue limits

CAC/MRL 02-2006, Maximum residue limits for veterinary drugs in foods

CAC/RCP 57, Code of hygiene practice for milk and milk products

CODEX STAN 1: General standard for the labeling of prepackaged foods

CODEX STAN 192-1995, Codex general standard for food additives

CODEX STAN 193-1995: Codex general standard for contaminants and toxins in foods

EAS 12:2000, Drinking (Potable) water — Specification

EAS 16, Plantation (mill) white sugar — Specification

EAS 22, Butter and whey butter — Specification

EAS 36, Honey — Specification

EAS 49, Dried whole milk and skimmed milk powder — Specification

EAS 69, pasteurized liquid milk — Specification

EAS 87, Condensed milk — Specification

ISO 6785, Milk and milk products — Detection of *Salmonella spp.*

ISO 11866, Milk and milk products — Enumeration of presumptive *Escherichia coli*

ISO 3728: Ice-cream and milk ice-determination of total solids content

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

ISO 4832, Microbiology of food and animal feeding stuffs -- Horizontal method for the enumeration of coliforms -- Colony-count technique

ISO 6611: Milk and milk products — Enumeration of colony-forming units of yeasts and/or moulds — Colony-count technique at 25 °C

ISO 7328: milk-based ices and ice mixes-determination of fat content-gravimetric method (reference method)

ISO 7932: Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of presumptive *Bacillus cereus* — Colony-count technique at 30 °C

ISO 8197, Milk and milk products — Inspecting sampling — Inspection by variables

ISO 11290: Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of *Listeria monocytogenes*

### **3 Definitions**

For the purpose of this standard the following definitions shall apply:

#### **3.1 dairy**

refers to or is suggestive, directly or indirectly, of milk or milk products

#### **3.2 dairy ice**

a frozen food product made from pasteurized cow milk ice mix by freezing followed by the optional addition of dairy chocolate, fruits, nuts, or confections

#### **3.3 dairy ice cream**

a frozen food product made from pasteurized dairy ice cream mix by a process of freezing with incorporation of air, followed by the optional addition of dairy chocolate, fruits, nuts or confections

#### **3.4 milk**

means the normal, clean and fresh secretions extracted from the udder of a healthy milking cow, properly fed and kept, but excluding that got during the first seven days after calving

### **4 Requirements**

#### **4.1 Principal ingredients**

Dairy cream, frozen custard and milk ice shall contain one or more of the following permitted ingredients.

##### **4.1.1 Milk and milk products**

**4.1.1.1 Milk** — May be dried, concentrated or pasteurized. Shall comply with requirements of the following East African standards:

(a) EAS 49.

(b) EAS 87.

(c) EAS 69.

##### **4.1.1.2 Cream**

**4.1.1.3 Butter** complying EAS 22.

**4.1.2 Sugar** — Complying with EAS 16.

**4.1.3 Honey** — Complying with EAS 36.

**4.1.4 Water** — Complying with EAS 12.

## 4.2 Optional ingredients

All optional ingredients shall be fit for human consumption and shall comply with the relevant COMESA/East African Standards standards.

The following ingredients may be added to dairy ice and dairy ice cream.

4.2.1 Egg or egg products.

4.2.2 Fruit and fruit products

The products may be fresh, frozen, dried, canned or in syrup form

4.2.3 Chocolate or cocoa

4.2.4 Coffee

4.2.5 Nuts (all kinds)

4.3 The dairy ice mix and dairy ice cream mix shall contain no fat other than milk fat save as may be introduced by the use as an ingredient of egg, flavouring substances, emulsifying agents or stabilizing agents.

4.4 The dairy ice and dairy ice cream shall conform to the compositional requirements given in table 1.

## 4.5 General requirements

Dairy ice and dairy ice cream shall be a homogeneous mixture free from organoleptically detectable ice-crystals. The flavour shall be typical of the ingredients used without any foreign taste or odour, or any indication of deterioration. The texture shall be free of grittiness. The overrun shall not exceed 100 per cent.

**Table 1 — Composition of the dairy ice and dairy ice cream**

Characteristic	Product		Method of test
	Dairy ice	Dairy ice cream	
Total sugar (excluding Lactose), % mass	min. 13.0	min. 13.0	EAS 81
Non-fat milk solids, % mass	min. 8.0	min. 13.0	ISO 3728
Milk fat, % mass	min. 3.0	min. 10.0	ISO 7328

## 5 Food additives

Stabilizers, emulsifiers and food flavours, may be added to the dairy ice and dairy ice cream in accordance with *CODEX STAN 192-1995*

Filling substances, preservative substances, synthetic sweetening substances or any other substances not permitted in *CODEX STAN 192-1995* shall not be added to the dairy ice and dairy ice cream.

## 6 Pasteurisation

Dairy ice mix and dairy ice cream mix shall be pasteurised at not less than 75°C for at least 30 minutes for the batch process and at not less than 80°C for at least 16 seconds for the continuous process before being frozen. They shall be phosphatase negative. The pasteurisation shall be carried out in suitable equipment and under conditions approved by the Public Health Authorities.

## 7 Microbiological limits

The product shall comply with the following microbiological limits in Table 2

**Table 2 — Microbiological quality limits**

Micro-organisms	Maximum limits (cfu)	Method of test
Total plate count	40 000/g	ISO 4833
<i>E. Coli</i>	Absent/g	ISO 11866
<i>Salmonella spp</i>	Absent/g	ISO 6785
<i>L. monocytogenes</i>	Absent/g	ISO 11290
Moulds and yeasts	10/g	ISO 6611
<i>Staphylococcus aureus</i>	Absent/g	ISO 6888
Coliforms	10/g	ISO 4832
<i>Bacillus cereus</i>	Absent/g	ISO 7932

## 8 Contaminants

### 8.1 Heavy metals

The products covered by this Standard shall comply with the maximum limits as specified in *CODEX STAN 193-1995*

### 8.2 Pesticide residues

The products covered by this Standard shall comply with the maximum residue limits specified in *CAC/MRL 2*

### 8.3 Veterinary drug residues

The products covered by this standard shall comply with the maximum residue limits specified in *CAC/MRL 02-2006*

## 9 Hygiene

**9.1** The products covered by the provisions of this standard shall be prepared and handled in accordance with *CAC/RCP 57*, Code of hygienic practice for milk and milk products.

**Note:** Reference to *CAC/RCP 57* does not mean an endorsement of the use of lactoperoxidase system as a means of preservation of raw milk as contained therein

**9.2** From raw material production to the point of consumption, the products covered by this standard should be subject to a combination of control measures, which may include, for example, pasteurisation, and these should be shown to achieve the appropriate level of public health protection.

## 10 Packaging

The product shall be packaged in clean, safe, food grade containers in such a way as to protect it from contamination and deterioration.

## 11 Labelling

The containers shall be labelled in accordance with the provisions of the *CODEX STAN 1-1985*. In addition, the following specific provisions apply:

### 11.1 The name of the product

- i) The name of the product shall include its designation.
- ii) The flavouring ingredient may be added to the designation of dairy ice and dairy ice cream as specified in Clause 5.
- iii) In case of products containing fruits, "name of the fruit" followed by the name of the product. The words "name of fruit or flavouring flavoured" may be added to dairy ice and dairy ice cream, (for example — "strawberry flavoured dairy ice cream").

Trade names may be used in labeling provided the designations in accordance with the principles of the above requirements are clear and prominent.

## **11.2 List of ingredients**

A complete list of ingredients shall be declared on the label in descending order of proportion.

## **11.3 Net Contents**

The net contents shall be declared by mass or volume in the SI units.

## **11.4 Name and physical address**

The name, physical location and address of the manufacturer or, packer, distributor, importer, exporter vendor, shall be declared.

## **11.5 Country of origin**

The country of origin of food shall be declared.

## **11.6 Date of manufacture**

There shall be an indication of the date of production, that is, the date the final product was packaged for final sale.

## **11.7 Date of expiry**

The date of expiry shall be indicated

## **11.8 Storage instructions**

## **11.9 Lot identification**

Each container shall be indelibly and legibly marked to identify the producing factory and the lot.

- vi) Ices and ice cream manufactured from fats other than from milk shall be labelled correctly without the mention of "milk or dairy".
- vii) The marking of ice products sold non-packaged, shall be effected by means of a notice displayed at the place of sale.

## **12 Sampling**

Sampling shall be done in accordance with ISO 5538 and ISO 8197