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# INTERNATIONAL STANDARD 3728

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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

*Crème glacée et glace au lait — Détermination de la teneur en matière sèche totale  
(Méthode de référence)*

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## FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3728 was drawn up by Technical Committee ISO/TC 34, *Agricultural food products*, and was circulated to the Member Bodies in February 1975.

It has been approved by the Member Bodies of the following countries :

Austria	Germany	Poland
Belgium	Ghana	Romania
Brazil	Hungary	South Africa, Rep. of
Bulgaria	India	Spain
Canada	Iran	Turkey
Chile	Israel	United Kingdom
Czechoslovakia	Mexico	Yugoslavia
Ethiopia	Netherlands	
France	New Zealand	

The Member Body of the following country expressed disapproval of the document on technical grounds :

Australia

NOTE — The method specified in this International Standard has been developed jointly with the IDF (International Dairy Federation) and the AOAC (Association of Official Analytical Chemists, U.S.A.).

The text as approved by the above organizations has also been published by the IDF (IDF Standard No. 70).

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

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a reference method for the determination of the total solids content of ice-cream, milk ices and similar products.

## 2 REFERENCE

ISO 707, *Milk and milk products — Sampling*.<sup>1)</sup>

## 3 DEFINITION

**total solids content of ice-cream or milk ice:** The percentage by mass of material remaining after drying by the procedure specified.

## 4 PRINCIPLE

Drying, at 102 °C, of a known quantity of the sample, diluted with water and mixed with sand, to constant mass, followed by weighing to determine the mass of the residue.

## 5 APPARATUS AND MATERIALS

### 5.1 Analytical balance.

### 5.2 Desiccator containing an efficient drying agent.

### 5.3 Drying oven, well ventilated and capable of being controlled at 102 ± 2 °C.

### 5.4 Flat dish, non-corrodible under the test conditions, about 25 mm deep and about 75 mm in diameter, with well-fitting lid.

### 5.5 Water bath, capable of being controlled at 45 ± 1 °C.

### 5.6 Boiling water bath.

### 5.7 Flat-ended glass rod. The total length of the rod shall be slightly less than the diameter of the dish (5.4).

### 5.8 Quartz sand or sea sand which passes through a sieve with nominal size of aperture 500 µm but is retained on a sieve of nominal size of aperture of 180 µm.<sup>2)</sup> The sand shall be washed successively with concentrated hydrochloric acid and distilled water, dried and ignited.

NOTE — Acid-washed sand is commercially available.

The acid-washed sand shall pass the following test for suitability. Dry about 25 g of the sand to constant mass at a temperature of 102 ± 2 °C in the oven (5.3). Cool. Weigh to the nearest 0,1 mg. Moisten the sand with distilled water, dry again to constant mass, cool and weigh to the nearest 0,1 mg. The difference between the two masses shall not exceed 0,5 mg.

## 6 SAMPLING

See ISO 707.<sup>3)</sup>

## 7 PROCEDURE

### 7.1 Preparation of the test sample

For samples taken in small packages, remove the packaging and place the sample in a clean, dry container fitted with an airtight closure.

For samples taken from bulk or from large packages, keep them in their sampling containers.

In either case, melt the sample by standing the container in the water bath (5.5) controlled at 45 ± 1 °C for just enough time to allow the sample to become a homogeneous, smooth paste.

1) In preparation. (Revision of ISO/R 707-1968.)

2) See ISO 565.

3) Pending the publication of ISO 707, refer to the instructions given in the annex.