PD ISO/TS 17758:2014

BSI Standards Publication

Instant dried milk — Determination of the dispersibility and wettability

bsi.

...making excellence a habit.™

National foreword

This Published Document is the UK implementation of ISO/TS 17758:2014.

The UK participation in its preparation was entrusted to Technical Committee AW/5, Chemical analysis of milk and milk products.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Published by BSI Standards Limited 2014

ISBN 978 0 580 77888 9
ICS 67.100.10

Compliance with a British Standard cannot confer immunity from legal obligations.

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 30 June 2014.

Amendments/corrigenda issued since publication

Date	Text affected

PD ISO/TS 17758:2014

TECHNICAL SPECIFICATION

ISO/TS 17758

IDF/RM 87

First edition
2014-06-15

Instant dried milk — Determination of the dispersibility and wettability

Poudre de lait instantanée — Détermination de la dispersibilité et de la mouillabilité

Reference numbers
ISO/TS 17758:2014(E)
IDF/RM 87:2014(E)

COPYRIGHT PROTECTED DOCUMENT

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

International Dairy Federation
Silver Building • Bd Auguste Reyers 70/B • B-1030 Brussels
Tel. + 32 2 325 67 40
Fax + 32 2 325 67 41
E-mail info@fil-idf.org
Web www.fil-idf.org

Published in Switzerland

Contents

Page

Forewords

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 34, *Food and food products*, Subcommittee SC 5, *Milk and milk products* and the International Dairy Federation (IDF). It is being published jointly by ISO and IDF.

IDF (the International Dairy Federation) is a non-profit private sector organization representing the interests of various stakeholders in dairying at the global level. IDF members are organized in National Committees, which are national associations composed of representatives of dairy-related national interest groups including dairy farmers, dairy processing industry, dairy suppliers, academics and governments/food control authorities.

ISO and IDF collaborate closely on all matters of standardization relating to methods of analysis and sampling for milk and milk products. Since 2001, ISO and IDF jointly publish their International Standards using the logos and reference numbers of both organizations.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. IDF shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

This document was prepared by the IDF Standing Committee on *Analytical Methods for Composition* and ISO Technical Committee ISO/TC 34, *Food and food products*, Subcommittee SC 5, *Milk and milk products*.

This IDF Reviewed method is equal to an ISO Publicly Available Specification (ISO/PAS) or an ISO Technical Specification (ISO/TS) and is therefore published jointly under ISO conditions.

The work was carried out by the IDF/ISO Project Group C28 of the Standing Committee on *Analytical Methods for Composition* under the aegis of its project leader, Dr. Steve Holroyd (NZ).

This ISO Technical Specification/IDF Reviewed Method replaces the standard IDF 87:1979, *Instant dried milk — Determination of the dispersibility and wettability* which has been withdrawn.

Introduction

The degree to which a dried milk is "instant" depends on various properties which can be classified as wettability, sinkability, dispersibility, and solubility. The first three affects the last to some extent and, hence, dispersibility, as defined and determined in this Technical Specification, is probably the best single criterion for assessing the overall instant characteristics of a dried milk. Provisional recommendations for acceptable dispersibility values for instant dried skimmed milk and instant dried whole milk are given in Annex A. Although wettability is a property not easily distinguishable from sinkability and is difficult to measure accurately, in milk powders, an approximate determination of wettability, which can be made rapidly, provides a useful indication of the degree to which a dried milk is likely to possess instant characteristics. In Annex B, a rapid routine method for the determination of the wettability (wetting time) in water of instant dried milk is described.

TECHNICAL SPECIFICATION

ISO/TS 17758:2014(E)
IDF/RM 87:2014(E)

Instant dried milk — Determination of the dispersibility and wettability

1 Scope

This Technical Specification specifies a method for the determination of the dispersibility in water of instant dried milk.

The method is applicable to instant dried skimmed milk manufactured by either the "straight-through" or the "re-wet" process and also to instant dried whole milk.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5537|IDF 26, *Dried milk — Determination of moisture content (Reference method)*

ISO 6731|IDF 21, *Milk, cream and evaporated milk — Determination of total solids content (Reference method)*

3 Principle

A test portion of the sample of known moisture content is evenly spread on the surface of water at a temperature of 25 °C. The mixture is stirred manually for a short time; then, part of the mixture is filtered through a sieve, and the total solids content of the collected liquid determined. Dispersibility is calculated from the mass of the test portion and the values for moisture content and total solids content.

4 Reagents

Use only distilled or demineralized water or water of equivalent purity.

5 Apparatus

5.1 Container, capacity about twice the volume of the laboratory sample (Clause 6), with airtight lid.

5.2 Apparatus, as specified in ISO 5537|IDF 26.

5.3 Balance, top-pan, capable of being read to the nearest 0,1 g.

5.4 Scoop, suitable for transporting the test portion (8.3.2) for weighing.

5.5 Thermometer, suitable for measuring a temperature of (25 ± 1) °C.

5.6 Glass beaker, with spout, capacity 600 ml, external diameter (90 ± 2) mm, overall height (126 ± 3) mm, graduated at 150 ml and 250 ml, with the rim lying in a horizontal plane parallel to the base [see Figure 1 a)].

5.7 Glass plate, 120 mm × 120 mm, thickness 2,5 mm, with ground edges [see Figure 1 a)].