

Plastics — Determination of melting behaviour (melting temperature or melting range) of semi-crystalline polymers

The European Standard EN ISO 3146:1997 has the status of a British Standard

IMPORTANT NOTICE: Before reading this method it is essential to read BS 2782-0 *Introduction* issued separately.

ICS 83.080.01

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Plastics and Rubber Standards Policy Committee (PRM/-) to Technical Committee PRM/21, upon which the following bodies were represented:

- British Plastics Federation
- British Steel Industry
- British Telecommunications plc
- Department of Trade and Industry (National Physical Laboratory)
- EEA (the Association of Electronics, Telecommunications and Business Equipment Industries)
- Electrical and Electronic Insulation Association (BEAMA Ltd.)
- Electrical Installation Equipment Manufacturers' Association (BEAMA Ltd.)
- GAMBICA (BEAMA Ltd.)
- Man-made Fibres Producers' Committee
- Ministry of Defence
- PIRA
- Packaging and Industrial Films Association
- Plastic Industrial Containers Association
- Plastics and Rubber Institute
- RAPRA Technology Ltd.
- Standards Association of Australia
- Yarsley Technical Centre Ltd.

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

- ERA Technology Ltd.
- Home Office
- Society of Motor Manufacturers and Traders Limited

This British Standard, having been prepared under the direction of the Plastics and Rubber Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 15 March 1991

© BSI 08-1999

The following BSI references relate to the work on this standard:
Committee reference PRM/21
Draft announced in *BSI News* March 1991

ISBN 0 580 19514 7

Amendments issued since publication

Amd. No.	Date	Comments
8644	June 1997	Indicated by a sideline in the margin

Contents

	Page
Committees responsible	Inside front cover
National foreword	ii
Foreword	2
0 Introduction	3
1 Scope and field of application	3
2 Definitions	3
Section 1. Method A — Capillary tube	
3 Principle	4
4 Apparatus	4
5 Test specimens	5
6 Procedure	5
7 Test report	5
Section 2. Method B — Polarizing microscope	
8 Principle	6
9 Apparatus	6
10 Test specimens	6
11 Procedure	6
12 Test report	7
Section 3. Method C — Thermal analysis (DTA or DSC)	
13 Additional definitions	8
14 Principle	9
15 Apparatus	9
16 Test specimens	9
17 Procedure	9
18 Expression of results	10
19 Test report	10
Figure 1 — Apparatus for method A	4
Figure 2 — Formalized DTA (or DSC) curve	11
Figure 3 — Examples of evaluation of T_o and T_p on DTA (or DSC) curves	12
Table 1 — Calibration standards	5
Table 2 — Characteristics of test specimens	9
Table 3 — DTA reference materials for transition temperatures in the range 125 to 435 °C	10

National foreword

This British Standard has been prepared under the direction of the Plastics and Rubber Standards Policy Committee and is the English language version of EN ISO 3146:1997 *Plastics — Determination of melting behaviour (melting temperature or melting range) of semi-crystalline polymers* published by the European Committee for Standardization (CEN) and is identical with ISO 3146:1985 published by the International Organization for Standardization (ISO).

Methods 125A, 125B, 125C1 and 125C2 of BS 2782 correspond to methods A, B, C1 and C2, respectively, of ISO 3146. Method 125B supersedes BS 2782-1:Method 123C:1976 which is withdrawn.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN ISO title page, pages 2 to 12 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

ICS 93.080

Descriptors: Textiles, floor coverings, textile coverings, tests, compression tests, thickness, measurements.

English version

Plastics — Determination of melting behaviour (melting temperature or melting range) of semi-crystalline polymers

(ISO 3146:1985)

Plastiques — Détermination du comportement à la fusion (température de fusion ou plage de température de fusion) des polymères semi-cristallins
(ISO 3146:1985)

Kunststoffe — Bestimmung des Schmelzverhaltens (Schmelztemperatur oder Schmelzbereich) von teilkristallinen Polymeren
(ISO 3146:1985)

This European Standard was approved by CEN on 1994-12-14. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

© 1997 Copyright reserved to CEN members

Ref. No. **Documents** E
AVA Document Sharing Hub

Foreword

The text of the International Standard from Technical Committee ISO/TC 61, *Plastics*, of the International Organization for Standardization (ISO) has been taken over as a European Standard by Technical Committee CEN/TC 249, *Plastics*, the secretariat of which is held by IBN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 1997, and conflicting national standards shall be withdrawn at the latest by July 1997.

According to CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.