

1996年10月8日

British Standard Methods of testing

Plastics

Part 4. Chemical properties

1986年5月12日

974084 43

Method 451A. Determination of acetone-soluble matter
in phenolic mouldings

98年7月2

[ISO title: Plastics – Phenolic mouldings – Determination of acetone-soluble matter]

9947 20

Méthodes d'essai des matières plastiques

Partie 4. Caractéristiques chimiques

Méthode 451A. Détermination des matières solubles dans l'acétone contenues dans les pièces moulées à base de phénoplastes

2002年5月19日

Prüfverfahren für Kunststoffe

Teil 4. Chemische Eigenschaften

Verfahren 451A. Bestimmung des azetonlöslichen Materials in phenolischen Preßteilen

2004年6月3日

IMPORTANT NOTE. Before reading this method it is essential to read the foreword, general introduction and instructions to BS 2782, issued separately.

National foreword

This method, which has been prepared under the direction of the Plastics Standards Committee, is identical with ISO 59 'Plastics – Phenolic mouldings – Determination of acetone-soluble matter'. It replaces method 401A of BS 2782 : 1970, which is being withdrawn.

Warning note. This method does not necessarily detail all the precautions necessary to meet the requirements of the Health and Safety at Work etc. Act 1974.

Attention should be paid to any appropriate safety precautions, and the method should only be operated by trained personnel.

Terminology and conventions. The text of the international standard has been approved as suitable for publication, without deviation, as a British Standard. Some terminology and certain conventions are not identical with those used in British Standards; attention is especially drawn to the following.

The comma has been used throughout as a decimal marker. In British Standards it is current practice to use a full point on the baseline as the decimal marker.

Wherever the words 'International Standard' appear, referring to this standard, they should be interpreted as 'British Standard'.

Cross-reference. For the following reference to an international standard given in the text, there is a corresponding British Standard; this is given below:

Reference to international standard	Corresponding British Standard
ISO 565 – 1972	BS 410 : 1976 Specification for test sieves

Additional information. The following British Standards are relevant to the reagent specified in clause 3 and the apparatus specified in clause 4.

BS 509	Acetone
BS 2071	Soxhlet extractors
BS 2648	Performance requirements for electrically-heated laboratory drying ovens



2006年6月29日



050920011944

3 88

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a gravimetric method for the determination of the amount of matter that can be extracted by acetone, at a temperature near its boiling point, from a finely ground sample of a phenolic moulding.

The test for acetone-soluble matter is one means for determining the relative degree of cure of phenolic mouldings made from a given material. The process of extraction is carried out under specified conditions for a specified time. Although a high proportion of soluble matter is determined, extraction is not necessarily complete. The results are only comparative, because the extracted material normally contains substances other than any undercured resin that may be present, for example lubricants, colouring matter and plasticizers.

2 PRINCIPLE

Hot extraction of acetone-soluble matter from a test portion which has been reduced to a finely divided state. Evaporation of the acetone, drying of the extract to constant mass and weighing of the dried extract.

3 REAGENT

Acetone, pure.

4 APPARATUS

4.1 Device for reducing the moulded sample to a finely divided state.

4.2 Sieve with nominal apertures of $425\ \mu\text{m}$, complying with ISO 565*.

4.3 Sieve with nominal apertures of $250\ \mu\text{m}$, complying with ISO 565*.

4.4 Analytical balance accurate to 0,001 g.

4.5 Extraction apparatus of the type shown in the figure.

Alternatively, it is permissible to use a Soxhlet-type apparatus, in which the material in the thimble is surrounded by the vapour of the boiling solvent. Any other extraction apparatus may be used, provided that it can be shown to give similar results.

4.6 Oven, circulating air type, capable of being controlled at $50 \pm 2\ ^\circ\text{C}$.

Dimensions in millimetres

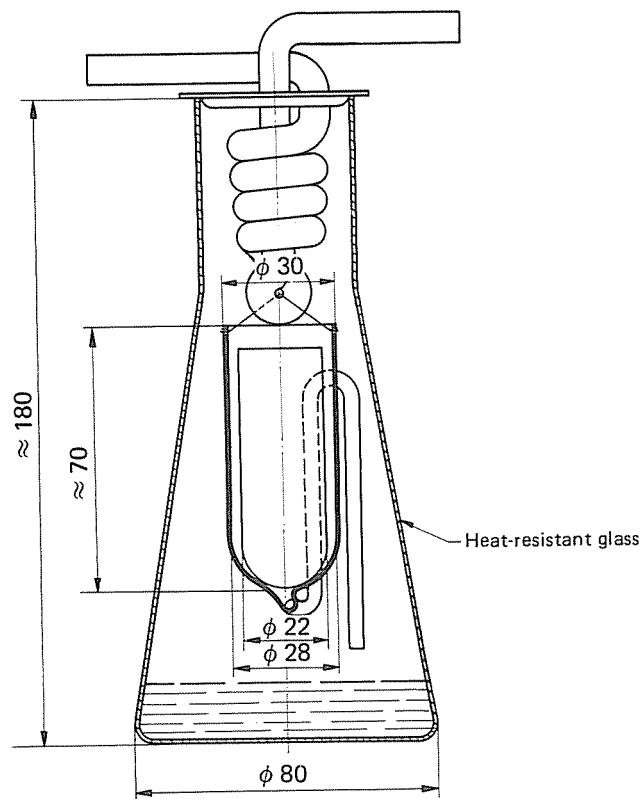


FIGURE — Extraction apparatus

* ISO 565, Test sieves — Woven metal wire cloth and perforated plate — Nominal sizes of apertures.