

一九八四年十月

1996年10月8日

British Standard Methods of testing

Plastics

Part 4. Chemical properties

1988年3月12日

98年1.2

97 08月 4日

Method 433A. Determination of inorganic chlorine in epoxide resins and glycidyl esters

[ISO title : Epoxide resins and glycidyl esters – Determination of inorganic chlorine]

99年7月20

2004年5月3日

Méthodes d'essai des matières plastiques

Partie 4. Caractéristiques chimiques

Méthode 433A. Détermination du dosage du chlore inorganique dans les résines d'époxydes et les esters glycidiques

2002年5月13日

2006年3月2日

Prüfverfahren für Kunststoffe

Teil 4. Chemische Eigenschaften

Verfahren 433A. Bestimmung des anorganischen Chlors in Epoxyharzen und in glyzidischen Estern

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

National foreword

This method, which has been prepared under the direction of the Plastics Standards Committee, is identical with ISO 4573 'Plastics – Epoxide resins and glycidyl esters – Determination of inorganic chlorine'.

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 read as 'British Standard'.

Cross-reference. The technical committee has reviewed the provisions of ISO 3696 to which reference is made in clause 2 and has decided they are acceptable for use in conjunction with this standard. A related British Standard is BS 3978 'Water for laboratory use'.

NOTE. *Textual error.* In the last line of paragraph 2 of 7.3 delete 'deflection' and substitute 'inflection'.

Warning note. This method, which is identical with ISO 4573, 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 be operated only by trained personnel.

2006年6月29日

一九八四年十月



1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a direct potentiometric method for the determination of inorganic substances in epoxide resins and glycidyl esters, called also "inorganic chlorine" or "ionic chlorine".

2 REFERENCE

ISO 3696, *Water for laboratory use — Specifications.*¹⁾

3 PRINCIPLE

Dissolution of a test portion in a suitable solvent. Determination of the chloride ion by potentiometric titration with a standard volumetric silver nitrate solution.

4 REAGENTS

During the analysis, use only reagents of recognized analytical grade and only grade 1 water conforming to ISO 3696.

4.1 **Acetic acid**, glacial, ρ 1,05 g/ml.

4.2 **Butanone** (methyl ethyl ketone).

NOTE — In some cases, butanone does not dissolve the resin; another, more suitable solvent should then be used, and mentioned in the test report.

4.3 **Hydrochloric acid**, 0,1 N solution.

4.4 **Potassium chloride**, 0,01 N solution.

4.5 **Silver nitrate**, 0,01 N standard volumetric solution.

4.5.1 Preparation

Dissolve 1,70 g of silver nitrate in water and dilute to 1 litre.

4.5.2 Standardization

Weigh, to the nearest 0,1 mg, 20 to 25 mg of sodium chloride, previously dried at 120 °C. Transfer to a 300 ml conical flask, and dissolve in 50 ml of water. Titrate with the silver nitrate solution (4.5.1) in accordance with 7.3.

4.5.3 Calculation of concentration

The concentration T , expressed as normality, is given by the formula

$$T = \frac{m}{58,45 V}$$

where

m is the mass, in milligrams, of sodium chloride used;

V is the volume, in millilitres, of the silver nitrate solution (4.5.1) used in the titration.

5 APPARATUS

Usual laboratory apparatus, and

5.1 **Microburette**, 10 ml capacity, graduated in 0,02 ml; length of delivery tube approximately 120 mm.

5.2 **Magnetic stirrer**.

5.3 **pH-millivoltmeter**, with glass and silver electrodes and titration stand.

¹⁾ At present at the stage of draft.