STANDARD **1598**

Second edition
1990-09-15

Plastics — Cellulose acetate — Determination of insoluble particles

Plastiques — Acétate de cellulose — Détermination des particules insolubles

Reference number
ISO 1598:1990(E)

Foreword

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 1598 was prepared by Technical Committee ISO/TC 61, *Plastics*.

This second edition cancels and replaces the first edition (ISO 1598:1975), of which it constitutes a minor revision.

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Plastics — Cellulose acetate — Determination of insoluble particles

WARNING — The use of this International Standard may involve hazardous materials, operations and equipment. This standard does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

1 Scope

This International Standard specifies a method for the determination of the number of visible particles (including all kinds of contamination and black dirt) in cellulose acetate which are insoluble in a mixture of dimethylphthalate, dichloromethane and methanol, and are of size 0,15 mm or larger.

This method is intended for cellulose acetate having an acetic acid yield above 50 % and containing no additives which affect the test results.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 565:1990, *Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings.*

ISO 585:—[1], *Plastics — Unplasticized cellulose acetate — Determination of moisture content.*

1) To be published. (Revision of ISO 585:1982)

3 Principle

A solution is prepared by addition of a solvent to the cellulose acetate, and the visible, undissolved particles in this solution, of a size equal to or larger than a standard reference particle of specified size, are counted.

4 Reagents

During the determination, use only reagents of recognized analytical grade, free from insoluble particles.

4.1 Dichloromethane, d_{20}^{20} 1,321 to 1,331, not less than 95 % (V/V) distilling between 39 °C and 40,5 °C at 1 013 mbar (760 mmHg).

SAFETY PRECAUTIONS — Dichloromethane is harmful by inhalation. Avoid contact with the skin.

4.2 Methanol, d_{20}^{20} 0,792 to 0,795, distillation range 64,5 °C to 65,5 °C at a pressure of 1 013 mbar (760 mmHg).

SAFETY PRECAUTIONS — Methanol is highly flammable and toxic by inhalation or if swallowed. Keep the container tightly closed and away from sources of ignition. Do not smoke. Avoid contact with the skin.

4.3 Dimethylphthalate, d_{20}^{20} 1,191 to 1,195, purity more than 99 % (m/m), having a moisture content less than 0,1 % (m/m).