SLOVENSKI STANDARD
SIST EN ISO 1157:2000

01-maj-2000

Polimerni materiali - Razredļ ena raztopina acetata celuloze - Doloļ anje viskoznostnega ġtevila in viskoznostnega razmerja (ISO 1157:1990)

Plastics - Cellulose acetate in dilute solution - Determination of viscosity number and viscosity ratio (ISO 1157:1990)

Kunststoffe - Celluloseacetat in verdünnter Lösung - Bestimmung der Viskositätszahl und des Viskositätsverhältnisses (ISO 1157:1990)

Plastiques - Acétate de cellulose en solution diluée - Détermination de l'indice de viscosité et du rapport de viscosité (ISO 1157:1990)

Ta slovenski standard je istoveten z: **EN ISO 1157:1999**

ICS:

83.080.20	Plastomeri	Thermoplastic materials

SIST EN ISO 1157:2000 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 1157

June 1999

ICS 83.080.00

English version

Plastics - Cellulose acetate in dilute solution - Determination of viscosity number and viscosity ratio (ISO 1157:1990)

Plastiques - Acétate de cellulose en solution diluée - Détermination de l'indice de viscosité et du rapport de viscosité (ISO 1157:1990)

Kunststoffe - Celluloseacetat in verdünnter Lösung - Bestimmung der Viskositätszahl und des Viskositätsverhältnisses (ISO 1157:1990)

This European Standard was approved by CEN on 5 March 1999.

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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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 an 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 December 1999, and conflicting national standards shall be withdrawn at the latest by December 1999.

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

Endorsement notice

The text of the International Standard ISO 1157:1990 has been approved by CEN as a European Standard without any modification.

NOTE: Normative references to International Standards are listed in annex ZA (normative).

Annex ZA (normative)
Normative references to international publications with their relevant European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

Publication	Year	Title	EN	Year
ISO 1628-1	1998	Plastics - Determination of the viscosity of polymers in dilute solution using capillary viscometers - Part 1: General principles	EN ISO 1628-1	1998

INTERNATIONAL STANDARD

ISO 1157

Second edition
1990-11-15

Plastics — Cellulose acetate in dilute solution — Determination of viscosity number and viscosity ratio

Plastiques — Acétate de cellulose en solution diluée — Détermination de l'indice de viscosité et du rapport de viscosité

Reference number
ISO 1157:1990(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 1157 was prepared by Technical Committee ISO/TC 61, *Plastics*.

This second edition cancels and replaces the first edition (ISO 1157:1975), of which it constitutes a minor revision.

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Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

Plastics — Cellulose acetate in dilute solution — Determination of viscosity number and viscosity ratio

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 determining the viscosity number and viscosity ratio of cellulose acetate in dilute solution in a mixture of dichloromethane and methanol.

The method applies to cellulose acetate with not less than 50 % acetic acid yield.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was 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 edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1628-1:1984, *Guidelines for the standardization of methods for the determination of viscosity number and limiting viscosity number of polymers in dilute solution — Part 1: General conditions.*

3 Definitions

For the definition of viscosity number, and for other terms, definitions and formulae, see ISO 1628-1.

4 Principle

The times of flow of a solvent and of a solution of cellulose acetate at a concentration of 5 mg/ml in that solvent are measured at 25 °C by conventional methods. The viscosity number and ratio are calculated from these measurements and from the known concentration of the solution. Density difference and kinetic energy corrections are small in this method and are not applied.

5 Solvents

During the determination, use only solvents of recognized analytical grade.

5.1 Dichloromethane, d_{20}^{20} 1,321 to 1,331, not less than 95 % by volume distilling between 39 °C and 40,5 °C at a pressure of 1 013 mbar (760 mmHg).

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

5.2 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.

6 Apparatus

Ordinary laboratory apparatus, plus the following: