



SLOVENSKI STANDARD SIST EN ISO 10350:1999

01-maj-1999

Polimerni materiali - Pridobitev in predstavitev primerljivih značilnih enotočkovnih podatkov (ISO 10350:1993)

Plastics - Acquisition and presentation of comparable single-point data (ISO 10350:1993)

Kunststoffe - Ermittlung und Darstellung vergleichbarer Einpunktkennwerte (ISO 10350:1993)

iTeh STANDARD PREVIEW

Plastiques - Acquisitions et présentation de caractéristiques intrinseques comparables (ISO 10350:1993)

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Ta slovenski standard je istoveten z: EN ISO 10350:1995

ICS:

83.080.01	Polimerni materiali na splošno	Plastics in general
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EUROPEAN STANDARD

EN ISO 10350

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 1995

ICS 83.080

Descriptors: plastics, properties, tests, testing conditions, test results, data acquisition, data representation

English version

**Plastics - Acquisition and presentation of
comparable single-point data (ISO 10350:1993)**

Plastiques - Acquisitions et présentation de
caractéristiques intrinsèques comparables
(ISO 10350:1993)

Kunststoffe - Ermittlung und Darstellung
vergleichbarer Einpunktkennwerte
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CEN

European Committee for Standardization
Comité Européen de Normalisation
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Foreword

The text of the International Standard from ISO/TC 61 "Plastics" of the International Organization for Standardization (ISO) has been taken over as a European Standard by the Technical Committee CEN/TC 249 "Plastics".

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of an identical text or by endorsement, at the latest by January 1996, and conflicting national standards shall be withdrawn at the latest by January 1996.

According to CEN/CENELEC Internal Regulations, 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.

Endorsement notice

The text of the International Standard ISO 10350:1993 has been approved by CEN as a European Standard without any modification.

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INTERNATIONAL STANDARD

ISO
10350

First edition
1993-12-15

Plastics — Acquisition and presentation of comparable single-point data

iTeh STANDARD PREVIEW
*Plastiques — Acquisition et présentation de caractéristiques intrinsèques
comparables*
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Reference number
ISO 10350:1993(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 10350 was prepared by Technical Committee ISO/TC 61, *Plastics*, Sub-Committee SC 1, *Terminology*.

Annex A of this International Standard is for information only.
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Introduction

This International Standard has been prepared because users of plastics find sometimes that available data cannot be used readily to compare the properties of similar materials, especially when the data have been supplied by different sources. Even when the same standard tests have been used, they often allow the adoption of a wide range of alternative test conditions, and the data obtained are not necessarily comparable. The purpose of this International Standard is to identify specific methods and conditions of test to be used for the acquisition and presentation of data in order that valid comparisons between materials can be made.

The present International Standard is concerned with tests employed to present "single-point" data on the limited range of properties commonly included in data sheets and used for the preliminary selection of materials. Such data represent the most basic approach to the specification of properties of materials and this International Standard thus facilitates the first steps towards more efficient selection and use of plastics in the many applications to which they are suited.

A complementary International Standard (to be published as ISO 11403, in several parts) will be concerned with the standardized acquisition and presentation of "multi-point" data, to demonstrate how properties vary with important factors such as time, temperature and the presence of particular natural and chemical environments. In that standard, some additional properties will be included. Its use will provide a more substantial database than one containing only single-point data, and so will enable improved assessment of the fitness of a material for any particular application. In addition, ISO 11403-1, which deals with mechanical properties, assists predictions of the performance of components and ISO 11403-2, covering thermal and processing properties, aids predictions of melt-flow behaviour during manufacturing. ISO 11403-3 will be concerned with environmental influences on properties, and other parts may be prepared to cover additional properties.

Plastics — Acquisition and presentation of comparable single-point data

1 Scope

This International Standard identifies specific test procedures for the acquisition and presentation of comparable data for certain basic properties of plastics. In general, each property is specified by a single experimental value although in certain cases properties are represented by two values obtained under different test conditions. The properties included are those presented conventionally in manufacturers' data sheets. The test methods and test conditions apply predominantly to those plastics that may be injection or compression-moulded or prepared as sheets of specified thickness.

thermosetting laminates and long-fibre-reinforced plastics.

ISO 178:1993, *Plastics — Determination of flexural properties.*

ISO 179:1993, *Plastics — Determination of Charpy impact strength.*

ISO 291:1977, *Plastics — Standard atmospheres for conditioning and testing.*

ISO 293:1986, *Plastics — Compression moulding test specimens of thermoplastic materials.*

ISO 294:1975, *Plastics — Injection moulding of test specimens of thermoplastic materials.*

ISO 295:1991, *Plastics — Compression moulding of test specimens of thermosetting materials.*

ISO 306:1987, *Plastics — Thermoplastic materials — Determination of Vicat softening temperature.*

ISO 527-1:1993, *Plastics — Determination of tensile properties — Part 1: General principles.*

ISO 527-2:1993, *Plastics — Determination of tensile properties — Part 2: Test conditions for moulding and extrusion plastics.*

ISO 899-1:1993, *Plastics — Determination of creep behaviour — Part 1: Tensile creep.*

ISO 1133:1991, *Plastics — Determination of the melt mass-flow rate (MFR) and the melt volume-flow rate (MVR) of thermoplastics.*

ISO 1183:1987, *Plastics — Methods for determining the density and relative density of non-cellular plastics.*

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 62:1980, *Plastics — Determination of water absorption.*

ISO 75-1:1993, *Plastics — Determination of temperature of deflection under load — Part 1: General test method.*

ISO 75-2:1993, *Plastics — Determination of temperature of deflection under load — Part 2: Plastics and ebonite.*

ISO 75-3:1993, *Plastics — Determination of temperature of deflection under load — Part 3: High-strength*

1) To be published. (Revision of ISO 294:1975)

ISO 10350:1993(E)

ISO 1210:1992, *Plastics — Determination of the burning behaviour of horizontal and vertical specimens in contact with a small-flame ignition source.*

ISO 2577:1984, *Plastics — Thermosetting moulding materials — Determination of shrinkage.*

ISO 2818:1980, *Plastics — Preparation of test specimens by machining.*

ISO 3146:1985, *Plastics — Determination of melting behaviour (melting temperature or melting range) of semi-crystalline polymers.*

ISO 3167:1993, *Plastics — Multipurpose test specimens.*

ISO 4589:1984, *Plastics — Determination of flammability by oxygen index.*

ISO 8256:1990, *Plastics — Determination of tensile-impact strength.*

ISO 10724:—²⁾, *Plastics — Thermosetting moulding materials — Injection moulding of multipurpose test specimens.*

ISO 11403-1:—²⁾, *Plastics — Acquisition and presentation of comparable multipoint data — Part 1: Mechanical properties.*

ISO 11403-2:—²⁾, *Plastics — Acquisition and presentation of comparable multipoint data — Part 2: Thermal and processing properties.*

IEC 93:1980, *Methods of test for volume resistivity and surface resistivity of solid electrical insulating materials.*

IEC 112:1979, *Method for determining the comparative and the proof tracking indices of solid insulating materials under moist conditions.*

IEC 243-1:1988, *Methods of test for electric strength of solid insulating materials — Part 1: Tests at power frequencies.*

IEC 250:1969, *Recommended methods for the determination of the permittivity and dielectric dissipation factor of electrical insulating materials at power, audio and radio frequencies including metre wavelengths.*

IEC 296:1982, *Specification for unused mineral insulating oils for transformers and switchgear.*

IEC 1006:1991, *Methods of test for the determination of the glass transition temperature of electrical insulating materials.*

3 Definition

For the purposes of this International Standard, the following definition applies.

3.1 single-point data: Data characterizing a plastics material by means of those property tests in which important aspects of performance can be described with a single-value result.

4 Specimen preparation and conditioning

In the preparation of specimens by injection- or compression-moulding, the procedures described in ISO 293, ISO 294 or ISO 295 shall be used. The moulding method and the conditions will depend upon the material being moulded. If these conditions are specified in the International Standard appropriate to the material then they shall be adopted for the preparation of every specimen on which data are obtained using this International Standard. For those plastics for which moulding conditions have not yet been standardized, the conditions employed shall be within the range recommended by the polymer manufacturer and shall, for each of the processing methods, be the same for every specimen.

Where moulding conditions are not stipulated in any International Standard, the values used for the parameters in table 1 shall be recorded with the single-point data for that material. Where specimens are prepared by machining from sheet, the machining shall be performed in accordance with ISO 2818 and the dimensions of the specimen shall comply with those for the appropriate specimen in table 2.

Specimen conditioning, including any post-moulding treatment, shall be carried out at $23\text{ °C} \pm 2\text{ °C}$ and $(50 \pm 5)\%$ R.H. for a minimum length of time of 88 h, except where special conditioning is required as specified by the appropriate material standard.

2) To be published.