

Irish Standard I.S. EN ISO 10350-1:2017

Plastics - Acquisition and presentation of comparable single-point data - Part 1: Moulding materials (ISO 10350-1:2017)

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I.S. EN ISO 10350-1:2017

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National Foreword

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EUROPEAN STANDARD

EN ISO 10350-1

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Supersedes EN ISO 10350-1:2008

English Version

Plastics - Acquisition and presentation of comparable single-point data - Part 1: Moulding materials (ISO 10350-1:2017)

Plastiques - Acquisition et présentation de caractéristiques intrinsèques comparables - Partie 1: Matériaux pour moulage (ISO 10350-1:2017)

Kunststoffe - Ermittlung und Darstellung vergleichbarer Einpunktkennwerte - Teil 1: Formmassen (ISO 10350-1:2017)

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European foreword

This document (EN ISO 10350-1:2017) has been prepared by Technical Committee ISO/TC 61 "Plastics" in collaboration with Technical Committee CEN/TC 249 "Plastics" the secretariat of which is held by NBN.

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of an identical text or by endorsement, at the latest by May 2018, and conflicting national standards shall be withdrawn at the latest May 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 10350-1:2008.

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INTERNATIONAL STANDARD

ISO 10350-1

Third edition 2017-09

Plastics — Acquisition and presentation of comparable single-point data —

Part 1: **Moulding materials**

Plastiques — Acquisition et présentation de caractéristiques intrinsèques comparables —

Partie 1: Matériaux pour moulage





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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 2, *Mechanical behavior*.

This third edition cancels and replaces the second edition (ISO 10350-1:2007), which has been technically revised. It also incorporates the Amendment ISO 10350-1:2007/Amd.1:2014.

A list of all parts in the ISO 10350 series can be found on the ISO website.

Introduction

The ISO 10350 series has been prepared because users of plastics find that available data cannot always be readily used 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 document 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 ISO 10350 series 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 the ISO 10350 series thus facilitates the first steps towards more efficient selection and use of plastics in the many applications to which they are suited.

Complementary International Standards (ISO 11403-1, ISO 11403-2 and ISO 11403-3) are concerned with the standardized acquisition and presentation of multipoint data, to demonstrate how properties vary with important factors such as time, temperature and the presence of particular natural and chemical environments. In these documents, some additional properties are included. Their 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 is 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 —

Part 1:

Moulding materials

1 Scope

The ISO 10350 series 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. This document applies predominantly to unreinforced and reinforced thermoplastic and thermosetting materials that may be injection- or compression-moulded or prepared as sheets of specified thickness. For the purposes of this document, long-fibre-reinforced plastics are considered to have fibre lengths greater than 7,5 mm prior to moulding.

NOTE ISO 10350-2 deals specifically with long- or continuous-fibre-reinforced plastics.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 62, Plastics — Determination of water absorption

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

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

ISO 178, Plastics — Determination of flexural properties

ISO 179-1, Plastics — Determination of Charpy impact properties — Part 1: Non-instrumented impact test

ISO 179-2, Plastics — Determination of Charpy impact properties — Part 2: Instrumented impact test

ISO 293, Plastics — Compression moulding of test specimens of thermoplastic materials

ISO 294-1, Plastics — Injection moulding of test specimens of thermoplastic materials — Part 1: General principles, and moulding of multipurpose and bar test specimens

ISO 294-3, Plastics — Injection moulding of test specimens of thermoplastic materials — Part 3: Small plates

ISO 294-4, Plastics — Injection moulding of test specimens of thermoplastic materials — Part 4: Determination of moulding shrinkage

ISO 295, Plastics — Compression moulding of test specimens of thermosetting materials

ISO 306, Plastics — Thermoplastic materials — Determination of Vicat softening temperature (VST)

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

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



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