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Irish Standard
I.S. EN ISO 24025-1:2020

Plastics - Sulfone polymer moulding and extrusion materials - Part 1: Designation system and basis for specifications (ISO 24025-1:2020)

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National Foreword

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EN ISO 24025-1

May 2020

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Supersedes EN ISO 25137-1:2017

English Version

Plastics - Sulfone polymer moulding and extrusion materials - Part 1: Designation system and basis for specifications (ISO 24025-1:2020)

Plastiques - Matériaux à base de polymères sulfone pour moulage et extrusion - Partie 1: Système de désignation et base de spécifications(ISO 24025-1:2020)

Kunststoffe - Sulfonpolymer-Werkstoffe für das Spritzgießen und die Extrusion - Teil 1: Bezeichnungssystem und Basis für Spezifikationen (ISO 24025-1:2020)

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European foreword **3**

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European foreword

This document (EN ISO 24025-1:2020) 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of an identical text or by endorsement, at the latest by November 2020, and conflicting national standards shall be withdrawn at the latest by November 2020.

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INTERNATIONAL STANDARD

ISO 24025-1

First edition
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Plastics — Sulfone polymer moulding and extrusion materials —

Part 1: Designation system and basis for specifications

Plastiques — Matériaux à base de polymères sulfone pour moulage et extrusion —

Partie 1: Système de désignation et base de spécifications

Reference number
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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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This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 9, *Thermoplastic materials*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 249, *Plastics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This first edition of ISO 24025-1 cancels and replaces ISO 25137-1:2009, which has been technically revised.

The main changes compared to the previous edition are as follows:

— in Clause 2, reference to ISO 25137-2 has been changed to ISO 24025-2;

— Clause 3 has been added;

— in Clause 4, the positions of data block have been changed;

— in Clause 5, the positions of data block have been changed.

A list of all parts in the ISO 24025 series can be found on the ISO website.

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Plastics — Sulfone polymer moulding and extrusion materials —

Part 1: Designation system and basis for specifications

1 Scope

This document establishes a system of designation for sulfone polymer moulding and extrusion materials, including polysulfone (PSU), polyethersulfone (PESU) and polyphenylsulfone (PPSU), which can be used as the basis for specifications.

The types of sulfone polymer materials are differentiated from each other by a classification system based on appropriate levels of the designatory properties

a) temperature of deflection under load,

b) melt mass-flow rate,

c) Charpy notched impact strength,

d) tensile modulus, and

e) yield stress,

and on information about composition, intended application and/or method of processing, important properties, additives, colorants, fillers and reinforcing materials.

This document is applicable to all sulfone polymers that contain ether oxygen, which is a necessary component of the polymers as in the diphenyl sulfone moiety. It applies to sulfone polymer materials ready for normal use in the form of powder, granules or pellets, unmodified or modified by colorants, additives, fillers, etc.

This document not intended to imply that materials having the same designation necessarily give the same performance. It does not provide engineering data, performance data or data on processing conditions which can be required to specify a material for a particular application and/or method of processing.

If such additional properties are required, they are determined in accordance with the test methods specified in ISO 24025-1, if suitable.

In order to specify a thermoplastic material for a particular application or to ensure reproducible processing, the requirements are given in data block 5 (see 4.1).

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 1043-1, *Plastics — Symbols and abbreviated terms — Part 1: Basic polymers and their special characteristics*

ISO 24025-2, *Plastics — Sulfone polymer moulding and extrusion materials — Part 2: Preparation of test specimens and determination of properties*

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