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)

I.S. EN ISO 24025-1:2020

Incorporating amendments/corrigenda/National Annexes issued since publication:

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This document is based on:	*Published:*
EN ISO 24025-1:2020	2020-05-27

This document was published under the authority of the NSAI and comes into effect on:	ICS number:
2020-06-14	83.080.20
	NOTE: If blank see CEN/CENELEC cover page

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National Foreword

I.S. EN ISO 24025-1:2020 is the adopted Irish version of the European Document 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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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 24025-1

May 2020

ICS 83.080.20

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)

This European Standard was approved by CEN on 16 May 2020.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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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of an identical text or by endorsement, at the latest by November 2020, and conflicting national standards shall be withdrawn at the latest by November 2020.

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 25137-1:2017.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 24025-1:2020 has been approved by CEN as EN ISO 24025-1:2020 without any modification.

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INTERNATIONAL STANDARD

ISO 24025-1

First edition
2020-05

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
ISO 24025-1:2020(E)

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Published in Switzerland

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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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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of 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 www.iso.org/iso/foreword.html.

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.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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*

