

STN	Plasty Materiály z polyéterketónu (PEEK) na tvárnenie a vytláčanie Časť 1: Systém označovania a základy na špecifikáciu (ISO 23153-1: 2020)	STN EN ISO 23153-1 64 3661
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Plastics - Polyetheretherketone (PEEK) moulding and extrusion materials - Part 1: Designation system and basis for specifications (ISO 23153-1:2020)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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**Plastics - Polyetheretherketone (PEEK) moulding and
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for specifications (ISO 23153-1:2020)**

Plastiques - Matériaux à base de polyétheréthercétone
(PEEK) pour moulage et extrusion - Partie 1: Système
de désignation et base de spécification (ISO 23153-
1:2020)

Kunststoffe - Polyetheretherketone (PEEK)-Werkstoffe
- Teil 1: Bezeichnungssystem und Basis für
Spezifikationen (ISO 23153-1:2020)

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EN ISO 23153-1:2020 (E)

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European foreword

This document (EN ISO 23153-1:2020) 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of an identical text or by endorsement, at the latest by September 2020, and conflicting national standards shall be withdrawn at the latest by September 2020.

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Plastics — Polyetheretherketone (PEEK) moulding and extrusion materials —

Part 1: Designation system and basis for specifications

*Plastiques — Matériaux à base de polyétheréthercétone (PEEK) pour
moulage et extrusion —*

Partie 1: Système de désignation et base de spécifications



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ISO 23153-1:2020(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.

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 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*.

A list of all parts in the ISO 23153 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 — Polyetheretherketone (PEEK) moulding and extrusion materials —

Part 1: Designation system and basis for specifications

1 Scope

This document establishes a system of designation for polyetheretherketone (PEEK) moulding and extrusion materials which can be used as the basis for specifications. Polyetheretherketone polymer chains are composed of phenylene rings linked in (1,4) position by a sequence of two ether groups followed by one ketone group.

The grades of PEEK plastics are differentiated from each other by a classification system based on appropriate levels of the designatory properties

- a) melt viscosity or melt volume-flow rate;
- b) tensile modulus;
- c) tensile strength;

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

The designation system is applicable to all polyetheretherketones.

It applies to materials ready for normal use in the form of powder, granules or pellets, unmodified or modified by colourants, fillers, reinforcements or other additives.

It is not intended to imply that materials having the same designation necessarily give the same performance. This document 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 intended to be determined in accordance with the test methods specified in ISO 23153-2, if suitable.

In order to specify a thermoplastic material for a particular application or to ensure reproducible processing, additional 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 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*

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

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ISO 1043-2, *Plastics — Symbols and abbreviated terms — Part 2: Fillers and reinforcing materials*

ISO 1133-1, *Plastics — Determination of the melt mass-flow rate (MFR) and melt volume-flow rate (MVR) of thermoplastics — Part 1: Standard method*

ISO 11443, *Plastics — Determination of the fluidity of plastics using capillary and slit-die rheometers*

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