
**Plastics — Polypropylene (PP)
moulding and extrusion materials —
Part 1:
Designation system and basis for
specifications**

*Plastiques — Matériaux polypropylène (PP) pour moulage et
extrusion —*

Partie 1: Système de désignation et base de spécification

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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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 61, *Plastics*, Subcommittee SC 9, *Thermoplastic materials*.

This first edition of ISO 19069-1 cancels and replaces ISO 1873-1:1995, which has been technically revised to introduce a new designation system.

ISO 19069 consists of the following parts, under the general title *Plastics — Polypropylene (PP) moulding and extrusion materials*:

- *Part 1: Designation system and basis for specifications*
- *Part 2: Preparation of test specimens and determination of properties*

Plastics — Polypropylene (PP) moulding and extrusion materials —

Part 1: Designation system and basis for specifications

1 Scope

This part of ISO 19069 establishes a system of designation for polypropylene (PP) thermoplastic material, which can be used as the basis for specifications.

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

- a) tensile modulus of elasticity,
- b) impact strength, and
- c) melt mass-flow rate (MFR),

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

This part of ISO 19069 is applicable to all polypropylene homopolymers and to copolymers of propylene with a content of other 1-olefinic of less than 50 % (m/m), as well as blends of polymers containing at least 50 % (m/m) of aforementioned polymers.

It applies to materials ready for normal use in the form of powder, granules, or pellets and to materials unmodified or modified by colorants, additives, fillers, etc.

This part of ISO 19069 does not apply to propylene-based rubber.

It is not intended to imply that materials having the same designation give necessarily the same performance. This part of ISO 19069 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 shall be determined in accordance with the test methods specified in ISO 19069-2¹⁾, if suitable.

In order to specify a thermoplastic material for a particular application or to ensure reproducible processing, additional requirements can be given in data block 5 (see 3.1).

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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*

1) To be published.