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Irish Standard  
I.S. EN ISO 8986-1:2009

Plastics - Polybutene-1 (PB-1) moulding  
and extrusion materials - Part 1:  
Designation system and basis for  
specifications (ISO 8986-1:2009)

## I.S. EN ISO 8986-1:2009

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English Version

**Plastics - Polybutene-1 (PB-1) moulding and extrusion materials  
- Part 1: Designation system and basis for specifications (ISO  
8986-1:2009)**

Plastiques - Matériaux à base de polybutène-1 (PB-1) pour  
moulage et extrusion - Partie 1: Système de désignation et  
base de spécification (ISO 8986-1:2009)

Kunststoffe - Polybuten-1 (PB-1)-Formmassen - Teil 1:  
Bezeichnungssystem und Basis für Spezifikationen (ISO  
8986-1:2009)

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## **Foreword**

This document (EN ISO 8986-1:2009) 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of an identical text or by endorsement, at the latest by May 2010, and conflicting national standards shall be withdrawn at the latest by May 2010.

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

This document supersedes EN ISO 8986-1:1999.

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STANDARD**

**ISO  
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**Plastics — Polybutene-1 (PB-1) moulding  
and extrusion materials —**

Part 1:  
**Designation system and basis for  
specifications**

*Plastiques — Matériaux à base de polybutène-1 (PB-1) pour moulage  
et extrusion —*

*Partie 1: Système de désignation et base de spécification*



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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 8986-1 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 9, *Thermoplastic materials*.

This second edition cancels and replaces the first edition (ISO 8986-1:1993), which has been technically revised. The main changes are as follows:

- it has been made clear that the standard concerns polybutene-1 as opposed to its isomer polyisobutene;
- density has been deleted as a designatory property;
- the only other designatory property, melt mass-flow rate (MFR), has been replaced by melt volume-flow rate (MVR);
- 190 °C/5,0 kg has been added to the sets of conditions which can be used for the measurement of MVR.

ISO 8986 consists of the following parts, under the general title *Plastics — Polybutene-1 (PB-1) moulding and extrusion materials*:

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

**I.S. EN ISO 8986-1:2009**

# Plastics — Polybutene-1 (PB-1) moulding and extrusion materials —

## Part 1: Designation system and basis for specifications

### 1 Scope

**1.1** This part of ISO 8986 establishes a system of designation for polybutene-1 (PB-1) thermoplastic materials which may be used as the basis for specifications. For the sake of simplicity, the designation polybutene and the abbreviation PB are used in both parts of ISO 8986.

**1.2** The types of polybutene plastics are differentiated from each other by a classification system based on appropriate levels of the designatory property melt volume-flow rate and on information about basic polymer parameters, intended application and/or method of processing, important properties, additives, colorants, fillers and reinforcing materials.

**1.3** This part of ISO 8986 is applicable to all butene homopolymers and to copolymers of butene with a maximum content of other 1-olefinic monomers of less than 50 % by mass and with a content of non-olefinic monomers with functional groups up to a maximum of 1 % by mass.

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.

**1.4** It is not intended to imply that materials having the same designation give necessarily the same performance. This part of ISO 8986 does not provide engineering data, performance data or data on processing conditions which may be required to specify a material for a particular application and/or method of processing.

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

### 2 Normative references

The following referenced documents are indispensable for the application 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 8986-2, *Plastics — Polybutene-1 (PB-1) moulding and extrusion materials — Part 2: Preparation of test specimens and determination of properties*

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