ICS 83.080.20 SLOVENSKÁ TECHNICKÁ NORMA Január 2020

STN	**Plasty** **Materiály z 1-polybuténu (PB-1) na tvárnenie a vytláčanie** **Časť 2: Príprava skúšobných telies a stanovenie vlastností (ISO 21302-2: 2019)**	**STN** **EN ISO 21302-2** 64 2500

Plastics - Polybutene-1 (PB-1) moulding and extrusion materials - Part 2: Preparation of test specimens and determination of properties (ISO 21302-2:2019)

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

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 12/19

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Oznámením tejto normy sa ruší
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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 21302-2

June 2019

ICS 83.080.20

Supersedes EN ISO 8986-2:2009

English Version

Plastics - Polybutene-1 (PB-1) moulding and extrusion materials - Part 2: Preparation of test specimens and determination of properties (ISO 21302-2:2019)

Plastiques - Matériaux à base de polybutène-1 (PB-1) pour moulage et extrusion - Partie 2: Préparation des éprouvettes et détermination des propriétés (ISO 21302-2:2019)

Kunststoffe - Polybuten-1 (PB-1)-Werkstoffe - Teil 2: Herstellung von Probekörpern und Bestimmung von Eigenschaften (ISO 21302-2:2019)

This European Standard was approved by CEN on 12 May 2019.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Ref. No. EN ISO 21302-2:2019 E

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European foreword

This document (EN ISO 21302-2:2019) 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of an identical text or by endorsement, at the latest by December 2019, and conflicting national standards shall be withdrawn at the latest by December 2019.

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 8986-2:2009.

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Endorsement notice

The text of ISO 21302-2:2019 has been approved by CEN as EN ISO 21302-2:2019 without any modification.

INTERNATIONAL STANDARD

ISO 21302-2

First edition
2019-05

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

Part 2: Preparation of test specimens and determination of properties

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

Partie 2: Préparation des éprouvettes et détermination des propriétés

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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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 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 9, *Thermoplastic materials*.

This first edition of ISO 21302-2 cancels and replaces ISO 8986-2:2009, which has been technically revised. The main changes compared to the previous edition are as follows:

— the symbol of general properties and additional properties has been added;

— the type and size of tensile sample ISO 527-4 (1B type test) has been modified to ISO 20753 (A1 or A2 type test);

— the type and size of the relative permittivity, dissipation factor, volume resistivity and surface resistivity samples have been modified from ≥ 80 × ≥ 80 × 1 to ≥ 60 × ≥ 60 × 2;

— the type and size of the electric strength sample has been modified from ≥ 80 × ≥ 80 × 1 or ≥ 80 × ≥ 80 × 3 to ≥ 60 × ≥ 60 × 1;

— the type and size of the water absorption sample has been modified from 50 × 50 × 3 or ø50 × 3 to 60 × 60 × 1;

— the test conditions of the density have been added. (the sample was regulated in a standard atmosphere of 23 °C ± 2 °C and 50 % ± 10 % relative humidity).

A list of all parts in the ISO 21302 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.

INTERNATIONAL STANDARD **ISO 21302-2:2019(E)**

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

Part 2: Preparation of test specimens and determination of properties

1 Scope

This document specifies the methods of preparation of test specimens and the test methods to be used in determining the properties of polybutene-1 (PB-1) moulding and extrusion materials. For the sake of simplicity, the designation polybutene-1 and the abbreviation PB are used in this document. Requirements for handling test material and for conditioning both the test material before moulding and the specimens before testing are also specified.

Procedures and conditions for the preparation of test specimens and procedures for measuring properties of the materials from which these specimens are made are given. Properties and test methods which are suitable and necessary to characterize PB-1 moulding and extrusion materials are listed.

The properties have been selected from the general test methods in ISO 10350-1. Other test methods in wide use for or of particular significance to these moulding and extrusion materials are also included in this document, as is the designatory property specified in ISO 21302-1.

In order to obtain reproducible and comparable test results, it is intended to use the methods of specimen preparation and conditioning, the specimen dimensions and the test procedures specified in this document. Values determined will not necessarily be identical to those obtained using specimens of different dimensions or prepared using different procedures.

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 62, *Plastics — Determination of water absorption*

ISO 75-2, *Plastics — Determination of temperature of deflection under load — Part 2: Plastics and ebonite*

ISO 178, *Plastics — Determination of flexural properties*

ISO 179-1, *Plastics — Determination of Charpy impact properties — Part 1: Non-instrumented impact test*

ISO 179-2, *Plastics — Determination of Charpy impact properties — Part 2: Instrumented impact test*

ISO 291, *Plastics — Standard atmospheres for conditioning and testing*

ISO 293, *Plastics — Compression moulding of test specimens of thermoplastic materials*

ISO 527-2, *Plastics — Determination of tensile properties — Part 2: Test conditions for moulding and extrusion plastics*

ISO 899-1, *Plastics — Determination of creep behaviour — Part 1: Tensile creep*

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 1183-1, *Plastics — Methods for determining the density of non-cellular plastics — Part 1: Immersion method, liquid pyknometer method and titration method*

ISO 1183-2, *Plastics — Methods for determining the density of non-cellular plastics — Part 2: Density gradient column method*

ISO 1183-3, *Plastics — Methods for determining the density of non-cellular plastics — Part 3: Gas pyknometer method*

ISO 1628-3, *Plastics — Determination of the viscosity of polymers in dilute solution using capillary viscometers — Part 3: Polyethylenes and polypropylenes*

ISO 2818, *Plastics — Preparation of test specimens by machining*

ISO 4589-2, *Plastics — Determination of burning behaviour by oxygen index — Part 2: Ambient-temperature test*

ISO 8256, *Plastics — Determination of tensile-impact strength*

ISO 10350-1, *Plastics — Acquisition and presentation of comparable single-point data — Part 1: Moulding materials*

ISO 11357-2, *Plastics — Differential scanning calorimetry (DSC) — Part 2: Determination of glass transition temperature and glass transition step height*

ISO 11357-3, *Plastics — Differential scanning calorimetry (DSC) — Part 3: Determination of temperature and enthalpy of melting and crystallization*

ISO 11357-6, *Plastics — Differential scanning calorimetry (DSC) — Part 6: Determination of oxidation induction time (isothermal OIT) and oxidation induction temperature (dynamic OIT)*

ISO 20753, *Plastics — Test specimens*

ISO 21302-1, *Plastics — Polybutene-1 (PB-1) moulding and extrusion materials — Part 1: Designation system and basis for specifications*

IEC 62631-3-1, *Dielectric and resistive properties of solid insulating materials — Part 3-1: Determination of resistive properties (DC methods) — Volume resistance and volume resistivity — General method*

IEC 62631-3-2, *Dielectric and resistive properties of solid insulating materials — Part 3-2: Determination of resistive properties (DC methods) — Surface resistance and surface resistivity*

IEC 60112, *Method for the determination of the proof and the comparative tracking indices of solid insulating materials*

IEC 60243-1, *Electrical strength of insulating materials — Test methods — Part 1: Tests at power frequencies*

IEC 62631-2-1, *Dielectric and resistive properties of solid insulating materials — Part 2-1: Relative permittivity and dissipation factor — Technical frequencies (0,1 Hz - 10 MHz) — AC methods*

IEC 60296, *Fluids for electrotechnical applications — Unused mineral insulating oils for transformers and switchgear*

IEC 60695-11-10, *Fire hazard testing — Part 11-10: Test flames — 50 W horizontal and vertical flame test methods*