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STN	**Plasty. Materiály z polyetylénu (PE) na tvárnenie a vytláčanie. Časť 1: Systém označovania a základy na špecifikáciu (ISO 17855-1: 2014).**	**STN EN ISO 17855-1** 64 3010

Plastics - Polyethylene (PE) moulding and extrusion materials - Part 1: Designation system and basis for specifications (ISO 17855-1:2014)

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. 03/15

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English Version

Plastics - Polyethylene (PE) moulding and extrusion materials - Part 1: Designation system and basis for specifications (ISO 17855-1:2014)

Plastiques - Polyéthylène (PE) pour moulage et extrusion - Partie 1: Système de désignation et base de spécification (ISO 17855-1:2014)

Kunststoffe - Polyethylen (PE)-Formmassen - Teil 1: Bezeichnungssystem und Basis für Spezifikationen (ISO 17855-1:2014)

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Foreword

This document (EN ISO 17855-1:2014) 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of an identical text or by endorsement, at the latest by April 2015, and conflicting national standards shall be withdrawn at the latest by April 2015.

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.

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Endorsement notice

The text of ISO 17855-1:2014 has been approved by CEN as EN ISO 17855-1:2014 without any modification.

INTERNATIONAL STANDARD

ISO 17855-1

First edition
2014-10-15

Plastics — Polyethylene (PE) moulding and extrusion materials —

Part 1: Designation system and basis for specifications

Plastiques — Polyéthylène (PE) 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. www.iso.org/directives

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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 17855-1 cancels and replaces ISO 1872-1:1993, which has been technically revised to introduce a new designation system.

ISO 17855 consists of the following parts, under the general title *Plastics — Polyethylene (PE) moulding and extrusion materials*:

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

— *Part 2: Preparation of test specimens and determination of properties*

INTERNATIONAL STANDARD **ISO 17855-1:2014(E)**

Plastics — Polyethylene (PE) moulding and extrusion materials —

Part 1: Designation system and basis for specifications

1 Scope

1.1 This part of ISO 17855 establishes a system of designation for polyethylene thermoplastic material, which may be used as the basis for specifications.

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

a) density,

b) melt mass-flow rate,

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

1.3 This part of ISO 17855 is applicable to all polyethylene homopolymers and to copolymers of ethylene having a content of other 1-olefinic monomers of less than 50 % (mass fraction) and a content of non-olefinic monomers with functional groups up to a maximum of 3 % (mass fraction).

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

This part of ISO 17855 does not apply to masterbatches or to EPM rubber. This part of ISO 17855 also does not apply to PE-UHMW. It should reference to ISO 11542-1 for PE-UHMW.

1.4 It is not intended to imply that materials having the same designation give necessarily the same performance. This part of ISO 17855 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.

If such additional properties are required, they shall be determined in accordance with the test methods specified in ISO 1872-2, if suitable.

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 Clause 3, introductory paragraph).

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*

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 1872-2, *Plastics — Polyethylene (PE) moulding and extrusion materials — Part 2: Preparation of test specimens and determination of properties*

ISO 11542-1, *Plastics — Ultra-high-molecular-weight polyethylene (PE-UHMW) moulding and extrusion materials — Part 1: Designation system and basis for specifications*