

Plastics - Compression-moulded sheets of polyethylene  
(PE-UHMW, PE-HD) - Requirements and test methods  
(ISO 15527:2018)

## EESTI STANDARDI EESSÕNA

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English Version

Plastics - Compression-moulded sheets of polyethylene  
(PE-UHMW, PE-HD) - Requirements and test methods (ISO  
15527:2018)

Plastiques - Plaques moulées par compression en  
polyéthylène (PE-UHMW, PE-HD) - Exigences et  
méthodes d'essai (ISO 15527:2018)

Kunststoffe - Gepresste Tafeln aus Polyethylen (PE-  
UHMW, PE-HD) - Anforderungen und Prüfverfahren  
(ISO 15527:2018)

This European Standard was approved by CEN on 4 November 2018.

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

## European foreword

This document (EN ISO 15527:2018) 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of an identical text or by endorsement, at the latest by June 2019, and conflicting national standards shall be withdrawn at the latest by June 2019.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 15527:2013.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Endorsement notice

The text of ISO 15527:2018 has been approved by CEN as EN ISO 15527:2018 without any modification.

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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](http://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](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 11, *Products*.

This third edition cancels and replaces the second edition (ISO 15527:2010), of which it constitutes a minor revision. The changes compared to the previous edition are as follows:

- [Clause 2](#) has been revised (in [6.9.2](#), ISO 179-1, rather than ISO 11542-2, is now used to determine the Charpy impact strength);
- the requirements given in [Table 2](#) for the abrasion properties have been modified;
- [Clause 3](#), Terms and definitions, has been added and the succeeding clauses have been renumbered;
- the document has been editorially revised.

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](http://www.iso.org/members.html).

# Plastics — Compression-moulded sheets of polyethylene (PE-UHMW, PE-HD) — Requirements and test methods

## 1 Scope

This document specifies the requirements and test methods for solid flat compression-moulded sheets of polyethylene (PE-UHMW and PE-HD, see ISO 1043-1) without fillers or reinforcing materials. It applies only to thicknesses from 10 mm to 200 mm.

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

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

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

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 (all parts), *Plastics — Methods for determining the density of non-cellular plastics*

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

ISO 11542-2, *Plastics — Ultra-high-molecular-weight polyethylene (PE-UHMW) moulding and extrusion materials — Part 2: Preparation of test specimens and determination of properties*

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

## 3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

## 4 Material

Sheets shall consist of PE-UHMW moulding materials as defined in ISO 11542-1 or PE-HD selected from polyethylene (PE) moulding materials as defined in ISO 17855-1, without fillers or reinforcing materials. Materials and additives of unknown identity shall not be used.

NOTE Legal conditions can necessitate a specific choice of moulding material (see 5.3.2).