



SLOVENSKI STANDARD SIST EN ISO 15527:2019

01-februar-2019

Nadomešča:
SIST EN ISO 15527:2013

Polimerni materiali - Kompresijsko brizgane polietilenske plošče (PE-UHMW, PE-HD) - Zahteve in preskusne metode (ISO 15527:2018)

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

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

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

Ta slovenski standard je istoveten z: EN ISO 15527:2018

ICS:

83.140.10 Filmi in folije Films and sheets

SIST EN ISO 15527:2019 en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 15527:2019

<https://standards.iteh.ai/catalog/standards/sist/757aabd1-95c1-4fcd-a46c-819177837438/sist-en-iso-15527-2019>

EUROPEAN STANDARD

EN ISO 15527

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2018

ICS 83.140.10

Supersedes EN ISO 15527:2013

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.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

iTeh STANDARD PREVIEW

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

Contents	Page
European foreword.....	3

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 15527:2019](https://standards.iteh.ai/catalog/standards/sist/757aabd1-95c1-4fcd-a46c-819177837438/sist-en-iso-15527-2019)
<https://standards.iteh.ai/catalog/standards/sist/757aabd1-95c1-4fcd-a46c-819177837438/sist-en-iso-15527-2019>

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.

iTeh STANDARD PREVIEW
Endorsement notice
(standards.iteh.ai)

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

<https://standards.iteh.ai/catalog/standards/sist/757aabd1-95c1-4fcd-a46c-819177837438/sist-en-iso-15527-2019>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 15527:2019

<https://standards.iteh.ai/catalog/standards/sist/757aabd1-95c1-4fcd-a46c-819177837438/sist-en-iso-15527-2019>

INTERNATIONAL
STANDARD

ISO
15527

Third edition
2018-11

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

*Plastiques — Plaques moulées par compression en polyéthylène (PE-
UHMW, PE-HD) — Exigences et méthodes d'essai*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 15527:2019](https://standards.iteh.ai/catalog/standards/sist/757aabd1-95c1-4fcd-a46c-819177837438/sist-en-iso-15527-2019)

[https://standards.iteh.ai/catalog/standards/sist/757aabd1-95c1-4fcd-a46c-
819177837438/sist-en-iso-15527-2019](https://standards.iteh.ai/catalog/standards/sist/757aabd1-95c1-4fcd-a46c-819177837438/sist-en-iso-15527-2019)



Reference number
ISO 15527:2018(E)

© ISO 2018

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 15527:2019

<https://standards.iteh.ai/catalog/standards/sist/757aabd1-95c1-4fcd-a46c-819177837438/sist-en-iso-15527-2019>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2018

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Material	1
5 Requirements	2
5.1 Appearance	2
5.2 Dimensional tolerances	2
5.2.1 Thickness	2
5.2.2 Length and width	2
5.2.3 Rectangularity	2
5.3 Properties	3
5.3.1 Physical properties	3
5.3.2 Physiological behaviour	3
6 Test methods	3
6.1 Test specimens	3
6.1.1 Preparation of test specimens	3
6.1.2 Conditioning	4
6.1.3 Testing	5
6.2 Delivery condition	5
6.3 Appearance	5
6.4 Dimensions	5
6.4.1 Thickness, h	5
6.4.2 Length, l , and width, b	5
6.4.3 Rectangularity	5
6.5 Density	5
6.6 Determination of abrasion properties	5
6.7 Tensile stress at yield, σ_y , and tensile strain at yield, ϵ_y	5
6.8 Modulus of elasticity in tension, E_t	5
6.9 Impact strength of notched specimens	6
6.9.1 Charpy impact strength of double-notched specimens	6
6.9.2 Charpy impact strength of single-notched specimens, a_{cN}	6
6.10 Melt mass-flow rate (MFR)	6
7 Designation	6
8 Marking	6
Annex A (normative) Requirements for rectangularity	7
Annex B (normative) Determination of abrasion properties	8
Annex C (informative) Example of apparatus for the determination of abrasion properties	10
Bibliography	11

ISO 15527:2018(E)

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 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.

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.

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).