

SLOVENSKI STANDARD

SIST EN ISO 11833-1:2019

01-november-2019

Nadomešča:

SIST EN ISO 11833-1:2012

Polimerni materiali - Nemehčane polivinilkloridne plošče - 1. del: Vrste, mere in značilnosti za plošče z debelino več kot 1 mm (ISO 11833-1:2019)

Plastics - Unplasticized poly(vinyl chloride) sheets - Part 1: Types, dimensions and characteristics for sheets of thickness not less than 1 mm (ISO 11833-1:2019)

Kunststoffe - Weichmacherfreie Polyvinylchloridtafeln - Typen, Maße und Eigenschaften - Teil 1: Tafeln mit einer Dicke von mindestens 1 mm (ISO 11833-1:2019)

Plastiques - Feuilles en poly(chlorure de vinyle) non plastifié - Partie 1: Types, dimensions et caractéristiques pour des plaques d'épaisseur non inférieure à 1 mm (ISO 11833-1:2019)

Ta slovenski standard je istoveten z: EN ISO 11833-1:2019

ICS:

83.140.10 Filmi in folije

Films and sheets

SIST EN ISO 11833-1:2019

en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 11833-1:2019

<https://standards.iteh.ai/catalog/standards/sist/b142b236-0b0f-46ec-8a96-ab49a69f0131/sist-en-iso-11833-1-2019>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 11833-1

August 2019

ICS 83.140.10

Supersedes EN ISO 11833-1:2012

English Version

**Plastics - Unplasticized poly(vinyl chloride) sheets - Part 1:
Types, dimensions and characteristics for sheets of
thickness not less than 1 mm (ISO 11833-1:2019)**

Plastiques - Feuilles en poly(chlorure de vinyle) non
plastifié - Partie 1: Types, dimensions et
caractéristiques pour des plaques d'épaisseur non
inférieure à 1 mm (ISO 11833-1:2019)

Kunststoffe - Weichmacherfreie Polyvinylchloridtafeln
- Teil 1: Typen, Maße und Eigenschaften für Tafeln mit
einer Dicke von mindestens 1 mm (ISO 11833-1:2019)

This European Standard was approved by CEN on 21 July 2019.

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.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, 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 11833-1:2019
<https://standards.iteh.ai/catalog/standards/sist/b142b236-0b0f-46ec-8a96-ab49a69f0131/sist-en-iso-11833-1-2019>

European foreword

This document (EN ISO 11833-1:2019) 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 February 2020, and conflicting national standards shall be withdrawn at the latest by February 2020.

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 11833-1:2012.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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

The text of ISO 11833-1:2019 has been approved by CEN as EN ISO 11833-1:2019 without any modification.

<https://standards.iteh.ai/catalog/standards/sist/b142b236-0b0f-46ec-8a96-ab49a69f0131/sist-en-iso-11833-1-2019>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 11833-1:2019

<https://standards.iteh.ai/catalog/standards/sist/b142b236-0b0f-46ec-8a96-ab49a69f0131/sist-en-iso-11833-1-2019>

INTERNATIONAL
STANDARDISO
11833-1Fourth edition
2019-07

Plastics — Unplasticized poly(vinyl chloride) sheets —**Part 1:
Types, dimensions and
characteristics for sheets of thickness
not less than 1 mm**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

*Plastiques — Feuilles en poly(chlorure de vinyle) non plastifié —
Partie 1: Types, dimensions et caractéristiques pour des plaques
d'épaisseur non inférieure à 1 mm*

<https://standards.iteh.ai/catalog/standards/sist/b142b236-0b0f-46ec-8a96-ab49a69f0131/sist-en-iso-11833-1-2019>

Reference number
ISO 11833-1:2019(E)

© ISO 2019

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 11833-1:2019

<https://standards.iteh.ai/catalog/standards/sist/b142b236-0b0f-46ec-8a96-ab49a69f0131/sist-en-iso-11833-1-2019>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2019

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 definition	2
4 Material	2
5 Classification	2
6 Requirements	2
6.1 Masking	2
6.2 Appearance	2
6.3 Dimensions	3
6.3.1 Length and width	3
6.3.2 Rectangularity	3
6.3.3 Thickness	4
6.4 Basic properties	4
6.5 Other mechanical and physical properties	6
6.6 Chemical and physiological properties	6
6.6.1 Flammability	6
6.6.2 Chemical resistance	6
6.6.3 Physiological behaviour	6
7 Test methods	6
7.1 General	6
7.1.1 Sampling	6
7.1.2 Preparation of specimens	6
7.1.3 Conditioning and testing of specimens	7
7.2 Appearance examination	7
7.3 Dimensions	7
7.4 Mechanical properties	8
7.4.1 Tensile stress at yield and nominal strain at break	8
7.4.2 Modulus of elasticity in tension	8
7.4.3 Charpy impact strength of notched specimens	9
7.5 Thermal properties	9
7.5.1 Vicat softening temperature	9
7.5.2 Dimensional change on heating and resistance to delamination	9
7.6 Total luminous transmittance	11
7.7 Other mechanical and physical properties	11
7.7.1 Charpy impact strength of unnotched specimens	11
7.7.2 Temperature of deflection under load	11
7.7.3 Creep modulus	11
7.7.4 Density	11
7.7.5 Flexural strength	12
7.7.6 Ball indentation hardness	12
7.7.7 Volume resistivity	12
8 Marking	12
Annex A (informative) Determination of resistance to delamination of thick pressed sheets using a wedge	13
Annex B (informative) Determination of resistance to delamination of thick pressed sheets by thermal bending	15

ISO 11833-1:2019(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 fourth edition cancels and replaces the third edition (ISO 11833-1:2012), which has been technically revised. The main changes compared to the previous edition are as follows:

- the title has been editorially revised to read "Plastics — Unplasticized poly(vinyl chloride) sheets — Part 1: Types, dimensions and characteristics for sheets of thickness not less than 1 mm";
- the "colour" requirements (former 5.3) have been incorporated with the "appearance" requirements in [6.2](#) (former 5.2);
- the requirements for measurement at any other temperature (t °C) than 23 °C has been added to [7.3.1](#) (former 6.3.1);
- the method of handling the results of [7.4.1](#), [7.4.2](#) and [7.4.3](#) (former 6.4.1 to 6.4.3) have been added;
- "Testing of sheets with a thickness between 1,0 mm and <1,5 mm shall be subject between the interested parties" has been added in [7.5.1](#) (former 6.5.1);
- a new [Table 7](#) "Frequency and measurement positions of appearance tests and dimensional measurements" has been added and the subsequent tables have been renumbered..

A list of all parts in the ISO 11833 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.

Plastics — Unplasticized poly(vinyl chloride) sheets —

Part 1:

Types, dimensions and characteristics for sheets of thickness not less than 1 mm

1 Scope

This document specifies the requirements for flat extruded sheets and pressed sheets of unplasticized poly(vinyl chloride) (PVC-U) and the test methods to be used to measure the required values.

It applies only to sheets of thickness not less than 1,0 mm.

It does not cover biaxially stretched PVC-U sheets.

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 75-2:2013, *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 291, *Plastics — Standard atmospheres for conditioning and testing*

ISO 306:2013, *Plastics — Thermoplastic materials — Determination of Vicat softening temperature (VST)*

ISO 472, *Plastics — Vocabulary*

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

ISO 899-2, *Plastics — Determination of creep behaviour — Part 2: Flexural creep by three-point loading*

ISO 21306-1:2019, *Plastics — Unplasticized poly(vinyl chloride) (PVC-U) moulding and extrusion materials — Part 1: Designation system and basis for specifications*

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

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

ISO 2039-1, *Plastics — Determination of hardness — Part 1: Ball indentation method*

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

ISO 2859-1, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*