



# SLOVENSKI STANDARD SIST EN ISO 12017:2021

01-september-2021

Nadomešča:  
SIST EN ISO 12017:1999

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**Polimerni materiali - Dvo- in triplastne plošče iz polimetilmetakrilata - Preskusne metode (ISO 12017:2021)**

Plastics - Poly(methyl methacrylate) double- and triple-skin sheets - Test methods (ISO 12017:2021)

Kunststoffe - Poly(methyl methacrylat) Stegdoppel- und Stegdreifachplatten - Prüfverfahren (ISO 12017:2021)

Plastiques - Plaques de poly(méthacrylate de méthyle) à double et triple paroi - Méthodes d'essai (ISO 12017:2021)

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**Ta slovenski standard je istoveten z: EN ISO 12017:2021**

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**ICS:**

83.140.10      Filmi in folije      Films and sheets

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EUROPEAN STANDARD

EN ISO 12017

NORME EUROPÉENNE

EUROPÄISCHE NORM

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Supersedes EN ISO 12017:1996

English Version

## Plastics - Poly(methyl methacrylate) double- and triple-skin sheets - Test methods (ISO 12017:2021)

Plastiques - Plaques de poly(méthacrylate de méthyle)  
à double et triple paroi - Méthodes d'essai (ISO  
12017:2021)

Kunststoffe - Poly(methyl methacrylat) Stegdoppel-  
und Stegdreifachplatten - Prüfverfahren (ISO  
12017:2021)

This European Standard was approved by CEN on 17 July 2021.

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## European foreword

This document (EN ISO 12017:2021) 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of an identical text or by endorsement, at the latest by January 2022, and conflicting national standards shall be withdrawn at the latest by January 2022.

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 12017:1996.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN websites.

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.

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The text of ISO 12017:2021 has been approved by CEN as EN ISO 12017:2021 without any modification.

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INTERNATIONAL  
STANDARD

ISO  
12017

Second edition  
2021-06

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**Plastics — Poly(methyl methacrylate)  
double- and triple-skin sheets — Test  
methods**

*Plastiques — Plaques de poly(méthacrylate de méthyle) à double et  
triple paroi — Méthodes d'essai*

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## ISO 12017:2021(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](http://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](http://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](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 11, *Products*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 249, *Plastics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 12017:1995), of which it constitutes a minor revision.

The changes compared to the previous edition are as follows:

- the normative reference clause ([Clause 2](#)) has been updated.

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 — Poly(methyl methacrylate) double- and triple-skin sheets — Test methods

## 1 Scope

This document specifies the test methods for quality control of poly(methyl methacrylate) (PMMA) extruded double- and triple-skin flat sheets, obtained from colourless and coloured transparent, translucent and opaque grades of materials.

The minimum sheet width is 600 mm.

The main applications of these sheets are in building and agriculture (greenhouses).

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

ISO 4892-2, *Plastics — Methods of exposure to laboratory light sources — Part 2: Xenon-arc sources*

ISO 7823-2:2003, *Plastics — Poly(methyl methacrylate) sheets — Types, dimensions and characteristics — Part 2: Melt-calendered extruded sheets*

ISO 8302, *Thermal insulation — Determination of steady-state thermal resistance and related properties — Guarded hot plate apparatus*

ISO 10140-2, *Acoustics — Laboratory measurement of sound insulation of building elements — Part 2: Measurement of airborne sound insulation*

ISO 10140-5, *Acoustics — Laboratory measurement of sound insulation of building elements — Part 5: Requirements for test facilities and equipment*

ISO 12999-1, *Acoustics — Determination and application of measurement uncertainties in building acoustics — Part 1: Sound insulation*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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/>

### 3.1

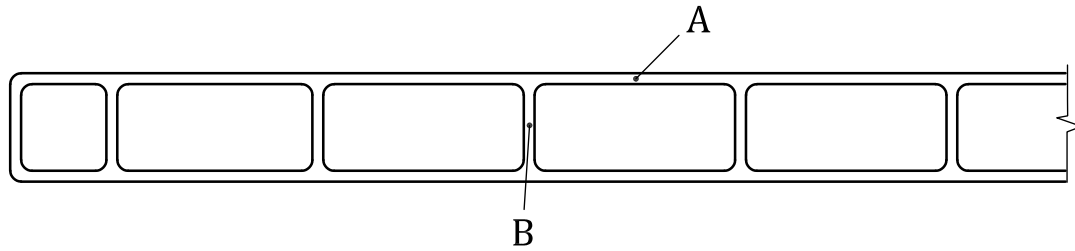
#### double-skin sheet

#### DSS

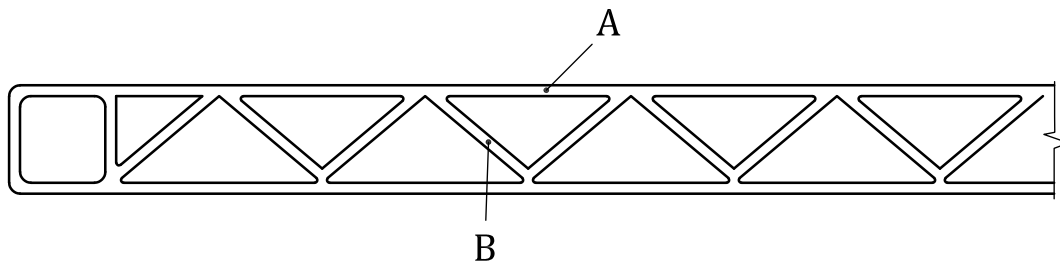
sheet having two parallel external skins, differently spaced and jointed by ribs of different shapes

Note 1 to entry: See [Figures 1](#) and [2](#).

## ISO 12017:2021(E)

**Key**

- A skin
- B rib

**Figure 1 — Example of a double-skin sheet****Key**

- A skin
- B rib

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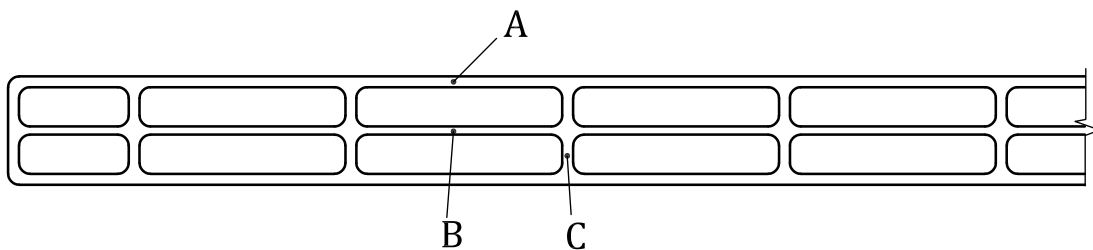
**Figure 2 — Example of a double-skin sheet**

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### 3.2 triple-skin sheet TSS

sheet having two external and an internal skin which is parallel and properly spaced by ribs from the external one

Note 1 to entry: See [Figure 3](#).

**Key**

- A skin
- B internal skin
- C rib

**Figure 3 — Example of a triple-skin sheet**