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BSI Standards Publication

## Plastics — Extruded sheets of polypropylene (PP) — Requirements and test methods

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## National foreword

This British Standard is the UK implementation of EN ISO 15013:2022. It is identical to ISO 15013:2022. It supersedes BS EN ISO 15013:2007, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PRI/75, Plastics and rubber film and sheets.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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### Amendments/corrigenda issued since publication

Date	Text affected
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## EUROPÄISCHE NORM

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English Version

## Plastics - Extruded sheets of polypropylene (PP) - Requirements and test methods (ISO 15013:2022)

Plastiques - Plaques extrudées en polypropylène (PP) -  
Exigences et méthodes d'essai (ISO 15013:2022)

Kunststoffe - Extrudierte Tafeln aus Polypropylen (PP)  
- Anforderungen und Prüfung (ISO 15013:2022)

This European Standard was approved by CEN on 24 January 2022.

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.

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

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## European foreword

This document (EN ISO 15013:2022) 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 September 2022, and conflicting national standards shall be withdrawn at the latest by September 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 15013:2007.

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 website.

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.

## Endorsement notice

The text of ISO 15013:2022 has been approved by CEN as EN ISO 15013:2022 without any modification.

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## Contents

Page

Foreword.....	iv
<b>1 Scope.....</b>	<b>1</b>
<b>2 Normative references.....</b>	<b>1</b>
<b>3 Terms and definitions.....</b>	<b>1</b>
<b>4 Material.....</b>	<b>1</b>
<b>5 Requirements.....</b>	<b>2</b>
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.....	3
5.2.4 Bow of sheets in rolled form.....	3
5.3 Properties.....	3
5.3.1 Mechanical and thermal properties.....	3
5.3.2 Behaviour on heating.....	4
5.3.3 Physiological behaviour.....	4
<b>6 Test methods.....</b>	<b>4</b>
6.1 Test specimens.....	4
6.1.1 Preparation of test specimens.....	4
6.1.2 Conditioning.....	4
6.1.3 Testing.....	4
6.2 Delivery condition.....	4
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
6.4.4 Bow of sheets in rolled form.....	5
6.5 Tensile stress at yield, $\sigma_y$ and tensile strain at yield, $\epsilon_y$ .....	5
6.6 Modulus of elasticity in tension, $E_t$ .....	5
6.7 Charpy impact strength of notched specimens, $a_{cn}$ .....	5
6.8 Melt mass-flow rate (MFR).....	6
6.9 Heat resistance.....	6
6.10 Determination of shrinkage on heating.....	6
<b>7 Designation and order specification.....</b>	<b>7</b>
7.1 Example for sheets.....	7
7.2 Example for sheets in rolled form.....	8
<b>8 Marking.....</b>	<b>8</b>
<b>Annex A (normative) Requirements for rectangularity.....</b>	<b>9</b>

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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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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 third edition cancels and replaces the second edition (ISO 15013:2007), which has been technically revised. The main changes compared to the previous edition are as follows.

- The minimum value of tensile strain at yield for PP-H group 1.1 in [Table 2](#) has been changed from  $\geq 9\%$  to  $\geq 7\%$ .
- The mandatory [Clause 3](#) (Terms and definitions clause) has been added and subsequent clauses have been renumbered.

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).

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# Plastics — Extruded sheets of polypropylene (PP) — Requirements and test methods

## 1 Scope

This document specifies the requirements and test methods for solid flat extruded sheets of polypropylene homopolymers (PP-H) and polypropylene copolymers (PP-B and PP-R) without fillers or reinforcing materials. This document applies to PP sheet in rolled form. It applies only to thicknesses of 0,5 mm to 40 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 179-2, *Plastics — Determination of Charpy impact properties — Part 2: 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 2818, *Plastics — Preparation of test specimens by machining*

ISO 4577, *Plastics — Polypropylene and propylene-copolymers — Determination of thermal oxidative stability in air — Oven method*

ISO 11501, *Plastics — Film and sheeting — Determination of dimensional change on heating*

ISO 19069-1, *Plastics — Polypropylene (PP) 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 terminology databases for use in standardization at the following addresses:

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

## 4 Material

Sheets shall consist of PP extrusion compounds as specified in ISO 19069-1, without fillers or reinforcing materials. The extrusion compounds can contain additives such as processing aids, stabilizers, flame