

---

---

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

*Plastiques — Plaques extrudées en polypropylène (PP) — Exigences et  
méthodes d'essai*



**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

This document is a preview generated by EVS



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2007

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

Foreword.....	iv
1 Scope .....	1
2 Normative references .....	1
3 Material .....	1
4 Requirements .....	2
4.1 Appearance .....	2
4.2 Dimensional tolerances .....	2
4.3 Properties .....	3
5 Test methods .....	4
5.1 Test specimens .....	4
5.2 Delivery condition .....	5
5.3 Appearance .....	5
5.4 Dimensions .....	5
5.5 Tensile stress at yield, $\sigma_y$ , and tensile strain at yield, $\varepsilon_y$ .....	5
5.6 Modulus of elasticity in tension, $E_t$ .....	5
5.7 Charpy impact strength of notched specimens, $a_{cn}$ .....	6
5.8 Melt mass-flow rate (MFR) .....	6
5.9 Heat resistance .....	6
5.10 Determination of shrinkage on heating .....	6
6 Designation .....	7
6.1 Example for sheets .....	7
6.2 Example for sheets in rolled form .....	8
7 Marking .....	8
Annex A (normative) Requirements for rectangularity .....	9

## 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 15013 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 11, *Products*.

This second edition cancels and replaces the first edition (ISO 15013:1998), Table 2 of which has been technically revised.

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

## 1 Scope

This International Standard 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 International Standard also applies to PP sheet in rolled form. It applies only to thicknesses of 0,5 mm to 40 mm.

## 2 Normative references

The following referenced documents are indispensable for the application 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 1: 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, *Plastics — Determination of the melt mass-flow rate (MFR) and the melt volume-flow rate (MVR) of thermoplastics*

ISO 1873-1, *Plastics — Polypropylene (PP) moulding and extrusion materials — Part 1: Designation system and basis for specifications*

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*

## 3 Material

Sheets shall consist of PP extrusion compounds as defined in ISO 1873-1, without fillers or reinforcing materials. The extrusion compounds can contain additives such as processing aids, stabilizers, flame retardants, impact modifiers and colorants. Compounds and additives of unknown identity shall not be used.

NOTE Legal conditions may necessitate a specific choice of extrusion material (see 4.3.3).