



**SLOVENSKI STANDARD  
SIST EN ISO 7214:2007**

**01-september-2007**

**BUXca Yý U  
SIST EN ISO 7214:2001**

---

**Penjeni polimerni materiali - Polietilen - Preskusne metode (ISO 7214:2007)**

Cellular plastics - Polyethylene - Methods of test (ISO 7214:2007)

Schaumstoffe - Polyethylen - Prüfverfahren (ISO 7214:2007)

Plastiques alvéolaires - Polyéthylène - Méthodes d'essai (ISO 7214:2007)

**iTeh STANDARD PREVIEW  
(standards.iteh.ai)**

**Ta slovenski standard je istoveten z: EN ISO 7214:2007**

<https://standards.iteh.ai/catalog/standards/sist/573d6d74-7f03-42cf-9cff-b3b6e5be4ed/sist-en-iso-7214-2007>

---

**ICS:**

83.100          Penjeni polimeri                          Cellular materials

**SIST EN ISO 7214:2007                          en,fr,de**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN ISO 7214:2007

<https://standards.iteh.ai/catalog/standards/sist/573d6d74-7f03-42cf-9cff-f33b6e5bc4cd/sist-en-iso-7214-2007>

English Version

Cellular plastics - Polyethylene - Methods of test (ISO  
7214:2007)

Plastiques alvéolaires - Polyéthylène - Méthodes d'essai  
(ISO 7214:2007)

Schaumstoffe - Polyethylen - Prüfverfahren (ISO  
7214:2007)

This European Standard was approved by CEN on 21 May 2007.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

[SIST EN ISO 7214:2007](https://standards.iteh.ai/catalog/standards/sist/573d6d74-7f03-42cf-9cff-f33b6e5bc4cd/sist-en-iso-7214-2007)

<https://standards.iteh.ai/catalog/standards/sist/573d6d74-7f03-42cf-9cff-f33b6e5bc4cd/sist-en-iso-7214-2007>



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

## Foreword

This document (EN ISO 7214:2007) 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 December 2007, and conflicting national standards shall be withdrawn at the latest by December 2007.

This document supersedes EN ISO 7214:2000.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

### Endorsement notice

The text of ISO 7214:2007 has been approved by CEN as EN ISO 7214:2007 without any modifications.

**(standards.iteh.ai)**

[SIST EN ISO 7214:2007](https://standards.iteh.ai/catalog/standards/sist/573d6d74-7f03-42cf-9cff-f33b6e5bc4cd/sist-en-iso-7214-2007)

<https://standards.iteh.ai/catalog/standards/sist/573d6d74-7f03-42cf-9cff-f33b6e5bc4cd/sist-en-iso-7214-2007>

---

---

**Cellular plastics — Polyethylene —  
Methods of test**

*Plastiques alvéolaires — Polyéthylène — Méthodes d'essai*

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 7214:2007](https://standards.iteh.ai/catalog/standards/sist/573d6d74-7f03-42cf-9cff-f33b6e5bc4cd/sist-en-iso-7214-2007)

<https://standards.iteh.ai/catalog/standards/sist/573d6d74-7f03-42cf-9cff-f33b6e5bc4cd/sist-en-iso-7214-2007>



**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.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 7214:2007](https://standards.iteh.ai/catalog/standards/sist/573d6d74-7f03-42cf-9cff-f33b6e5bc4cd/sist-en-iso-7214-2007)

<https://standards.iteh.ai/catalog/standards/sist/573d6d74-7f03-42cf-9cff-f33b6e5bc4cd/sist-en-iso-7214-2007>



**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
<b>1 Scope .....</b>	<b>1</b>
<b>2 Normative references .....</b>	<b>1</b>
<b>3 Test specimens .....</b>	<b>2</b>
<b>4 Conditioning.....</b>	<b>2</b>
<b>5 Atmosphere during test .....</b>	<b>2</b>
<b>6 Measurement of dimensions .....</b>	<b>3</b>
<b>7 Mandatory tests .....</b>	<b>3</b>
7.1 Apparent density.....	3
7.2 Compressive stress.....	3
7.3 Compression set.....	3
7.4 Tensile strength and elongation .....	3
7.5 Dimensional stability at elevated temperature .....	4
7.6 Water absorption .....	4
7.7 Burning characteristics.....	5
<b>8 Optional tests .....</b>	<b>6</b>
8.1 Dynamic cushioning performance.....	6
8.2 Compressive creep.....	6
8.3 Thermal conductivity.....	6
8.4 Water-vapour transmission.....	6
8.5 Dynamic stiffness .....	6
8.6 Cell count.....	6
8.7 Tear strength .....	6
8.8 Permanent set after repeated compression.....	8
<b>9 Test report .....</b>	<b>8</b>
<b>Annex A (normative) Cell count procedure.....</b>	<b>10</b>

## 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 7214 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 10, *Cellular plastics*.

This third edition cancels and replaces the second edition (ISO 7214:1998), which has been technically revised.

TECHNICAL STANDARD PREVIEW

(standards.iteh.ai)

SIST EN ISO 7214:2007

<https://standards.iteh.ai/catalog/standards/sist/573d6d74-7f03-42cf-9cff-f33b6e5bc4cd/sist-en-iso-7214-2007>



# Cellular plastics — Polyethylene — Methods of test

## 1 Scope

**1.1** This International Standard specifies methods for testing flexible and semi-rigid cellular plastics made from polyethylene. Cellular plastics containing copolymers of ethylene or blends of polymers with polyethylene may also be tested by the procedures of this International Standard provided these materials have characteristics similar to polyethylene as described in ISO 1872-1, or copolymers of ethylene as described in ISO 4613-1.

**1.2** Mandatory tests suitable for characterization of cellular polyethylene, regardless of end use, are described in Clause 7. Optional tests for the determination of properties that are relevant to certain uses are described in Clause 8.

## 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 845:2006, *Cellular plastics and rubbers — Determination of apparent density*

<https://standards.iteh.ai/catalog/standards/sist/573d6d74-7f03-42cf-9cff-714100000000/iso-845-2006>

ISO 1663, *Rigid cellular plastics — Determination of water vapour transmission properties*

ISO 1798, *Flexible cellular polymeric materials — Determination of tensile strength and elongation at break*

ISO 1856, *Flexible cellular polymeric materials — Determination of compression set*

ISO 1872-1, *Plastics — Polyethylene (PE) moulding and extrusion materials — Part 1: Designation system and basis for specifications*

ISO 1923, *Cellular plastics and rubbers — Determination of linear dimensions*

ISO 2796, *Cellular plastics, rigid — Test for dimensional stability*

ISO 2896, *Rigid cellular plastics — Determination of water absorption*

ISO 3386-1, *Polymeric materials, cellular flexible — Determination of stress-strain characteristics in compression — Part 1: Low-density materials*

ISO 3582, *Flexible cellular polymeric materials — Laboratory assessment of horizontal burning characteristics of small specimens subjected to a small flame*

ISO 4613-1, *Plastics — Ethylene/vinyl acetate (E/VAC) moulding and extrusion materials — Part 1: Designation and specification*

ISO 4651, *Cellular rubbers and plastics — Determination of dynamic cushioning performance*

ISO 7850:1986, *Cellular plastics, rigid — Determination of compressive creep*