



SLOVENSKI STANDARD
SIST EN ISO 4590:2016

01-oktober-2016

Nadomešča:
SIST EN ISO 4590:2003

Trdi penjeni polimerni materiali - Določanje prostorninskega deleža odprtih in zaprtih celic (ISO 4590:2016)

Rigid cellular plastics - Determination of the volume percentage of open cells and of closed cells (ISO 4590:2016)

Harte Schaumstoffe - Bestimmung des Volumenanteils offener und geschlossener Zellen (ISO 4590:2016)

Plastiques alvéolaires rigides - Détermination du pourcentage volumique de cellules ouvertes et de cellules fermées (ISO 4590:2016)

Ta slovenski standard je istoveten z: EN ISO 4590:2016

ICS:

83.100 Penjeni polimeri Cellular materials

SIST EN ISO 4590:2016 en,fr,de

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EUROPEAN STANDARD

EN ISO 4590

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

Rigid cellular plastics - Determination of the volume percentage of open cells and of closed cells (ISO 4590:2016)

Plastiques alvéolaires rigides - Détermination du pourcentage volumique de cellules ouvertes et de cellules fermées (ISO 4590:2016)

Harte Schaumstoffe - Bestimmung des Volumenanteils offener und geschlossener Zellen (ISO 4590:2016)

This European Standard was approved by CEN on 1 July 2016.

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.

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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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COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
European foreword.....	3

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European foreword

This document (EN ISO 4590:2016) 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 2017, and conflicting national standards shall be withdrawn at the latest by February 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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

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INTERNATIONAL
STANDARD

ISO
4590

Third edition
2016-07-15

**Rigid cellular plastics — Determination
of the volume percentage of open cells
and of closed cells**

*Plastiques alvéolaires rigides — Détermination du pourcentage
volumique de cellules ouvertes et de cellules fermées*

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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	2
5 Test specimens	2
5.1 Number.....	2
5.2 Preparation.....	3
5.3 Dimensions.....	3
5.4 Sectioning of test specimens.....	3
6 Conditioning and test atmospheres	3
7 Measurement of surface area S and geometrical volume V_g	3
8 Determination of impenetrable volume V_i by method 1: pressure variation (pycnometer) 4	4
8.1 Principle of method 1.....	5
8.2 Description of apparatus for method 1.....	5
8.3 Calibration of pycnometer apparatus.....	7
8.4 Procedure for method 1.....	8
8.5 Calculation for method 1.....	9
9 Determination of impenetrable volume V_i by method 2: volume expansion	9
9.1 Principle of method 2.....	9
9.2 Description of apparatus for method 2a.....	10
9.3 Calibration of apparatus for method 2a.....	11
9.4 Procedure and calculation for method 2a.....	14
9.5 Description of apparatus for method 2b.....	14
9.6 Calibration of apparatus for method 2b.....	15
9.7 Test procedure for method 2b.....	15
9.8 Test sequence for method 2b.....	16
9.9 Calculations and expression of results for method 2b.....	17
10 Correction for specimen surface cells opened during specimen preparation	17
10.1 For the pressure-variation method (see Clause 8).....	17
10.2 For the volume-expansion method (see Clause 9).....	17
11 Expression of results	18
11.1 Apparent volume percentage of open cells.....	18
11.2 Corrected volume percentage of open cells.....	18
12 Precision	19
13 Test report	20
Annex A (normative) Notes on procedure	21

ISO 4590:2016(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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 61, *Plastics*, Subcommittee SC 10, *Cellular plastics*.

This third edition cancels and replaces the second edition (ISO 4590:2002), which has been technically revised with the following changes:

- changes on [Clause 2](#);
- introduction of a new test method based on the variation of the volume which is named 2b and is explained under [9.5](#) to [9.7](#);
- references to the test methods have been revised consequently and the cross references;
- some editorial updates have been introduced.

Introduction

The method 2b is included in order to update the basics of the method with the modern apparatus. This International Standard kept the same measurement equipment since the first version of 1981 and new test equipment has been included in accordance with the technical advances. The equipment, its performance and calibration, and the calculation of the new method are described in [9.5](#) to [9.9](#).

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