SLOVENSKI STANDARD
SIST EN ISO 2439:2009

01-maj-2009

Nadomeġļa:
SIST EN ISO 2439:2001

Penjeni polimerni materiali - Mehke pene - Ugotavljanje trdote (odpornost proti vtiskovanju) (ISO 2439:2008)

Flexible cellular polymeric materials - Determination of hardness (indentation technique) (ISO 2439:2008)

Weich-elastische polymere Schaumstoffe - Bestimmung der Härte (Eindruckverfahren) (ISO 2439:2008)

Matériaux polymères alvéolaires souples - Détermination de la dureté (technique par indentation) (ISO 2439:2008)

Ta slovenski standard je istoveten z: **EN ISO 2439:2008**

ICS:

83.100	Penjeni polimeri	Cellular materials

SIST EN ISO 2439:2009 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

Flexible cellular polymeric materials - Determination of hardness (indentation technique) (ISO 2439:2008)

Matériaux polymères alvéolaires souples - Détermination de la dureté (technique par indentation) (ISO 2439:2008)

Weich-elastische polymere Schaumstoffe - Bestimmung der Härte (Eindruckverfahren) (ISO 2439:2008)

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

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Foreword

This document (EN ISO 2439:2008) has been prepared by Technical Committee ISO/TC 45 "Rubber and rubber products" 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of an identical text or by endorsement, at the latest by June 2009, and conflicting national standards shall be withdrawn at the latest by June 2009.

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Endorsement notice

The text of ISO 2439:2008 has been approved by CEN as a EN ISO 2439:2008 without any modification.

INTERNATIONAL STANDARD

ISO 2439

Fourth edition
2008-12-15

Flexible cellular polymeric materials — Determination of hardness (indentation technique)

Matériaux polymères alvéolaires souples — Détermination de la dureté (technique par indentation)

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ISO 2439:2008(E)

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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.

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.

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ISO 2439 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 4, *Products (other than hoses)*.

This fourth edition cancels and replaces the third edition (ISO 2439:1997 and ISO 2439:1997/Cor.1:1998), which has been technically revised.

Major modifications in this revised text are:

a) change in Scope to cover five methods;

b) inclusion of Figure 1 to illustrate the force-indentation curve; and

c) inclusion of informative annexes.

Flexible cellular polymeric materials — Determination of hardness (indentation technique)

WARNING — Persons using this International Standard should be familiar with normal laboratory practice. This International Standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

1 Scope

The indentation hardness of flexible cellular materials is a measure of their load-bearing properties. This International Standard specifies four methods (A to D) for the determination of indentation hardness and one method (E) for determination of compressive deflection coefficient and hysteresis loss rate of flexible cellular materials. Annex A provides a summary of test parameters and typical force-indentation graphs obtained with these methods.

These five methods are applicable only to latex foam, urethane foam and PVC foam of the open-cell type. The methods specified can be used for testing finished articles and for the characterization of bulk material.

This International Standard specifies the following methods:

a) Method A — Determination of the 40 %/30 s indentation hardness index, which gives a single indentation measurement for laboratory test purposes;

b) Method B — Determination of the 25 %-40 %-65 %/30 s indentation hardness characteristics, which provides information about the shape of the hardness indentation curve;

c) Method C — Determination of the 40 % indentation hardness check, which is a quick procedure suitable for quality control testing;

d) Method D — Determination of the 25 %/20 s low indentation hardness index, which is a quick procedure suitable as an inspection test;

e) Method E — Determination of the compressive deflection coefficient and hysteresis loss rate, which gives additional information about the load-bearing properties of materials.

The results obtained by these methods relate only to the test conditions specified and cannot, in general, be used directly for design purposes.

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 1382, *Rubber — Vocabulary*