# SLOVENSKI STANDARD

## SIST EN ISO 5999:2008

## 01-januar-2008

**Nadomeġļ a:**

**SIST EN ISO 5999:2004**

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**Polimerni materiali, mehke pene - Poliuretanska pena za nosilne aplikacije, razen za podlogo preprog - Specifikacija (ISO 5999:2007)**

Flexible cellular polymeric materials - Polyurethane foam for load-bearing applications excluding carpet underlay - Specification (ISO 5999:2007)

Weich-elastische Polymerschaumstoffe - Polyurethanschaumstoffe für Polsterzwecke mit Ausnahme von Teppichunterlagen - Anforderungen (ISO 5999:2007)



Matériaux polymeres alvéolaires souples - Mousse de polyuréthanne pour utilisations soumises a des charges, a l'exclusion des revers de tapis - Spécifications (ISO 5999:2007)



**Ta slovenski standard je istoveten z:** **EN ISO 5999:2007**

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**ICS:**

| | | |
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| 83.100 | Penjeni polimeri | Cellular materials |

**SIST EN ISO 5999:2008** **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

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ICS 83.100

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English Version

# Flexible cellular polymeric materials - Polyurethane foam for load-bearing applications excluding carpet underlay - Specification (ISO 5999:2007)

Matériaux polymères alvéolaires souples - Mousse de polyuréthanne pour utilisations soumises à des charges, à l'exclusion des revers de tapis - Spécifications (ISO 5999:2007)

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This European Standard was approved by CEN on 12 October 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.



EUROPEAN COMMITTEE FOR STANDARDIZATION
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# Foreword

This document (EN ISO 5999:2007) 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 May 2008, and conflicting national standards shall be withdrawn at the latest by May 2008.

This document supersedes EN ISO 5999:2004.

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 the United Kingdom.

**Endorsement notice**

The text of ISO 5999:2007 has been approved by CEN as a EN ISO 5999:2007 without any modification.

INTERNATIONAL STANDARD

**ISO 5999**

Second edition
2007-11-01

# Flexible cellular polymeric materials — Polyurethane foam for load-bearing applications excluding carpet underlay — Specification

*Matériaux polymères alvéolaires souples — Mousse de polyuréthanne pour utilisations soumises à des charges, à l'exclusion des revers de tapis — Spécifications*



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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.

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 5999 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 4, *Products (other than hoses)*.

This second edition cancels and replaces the first edition (ISO 5999:1982), which has been technically revised (for the main details, see Annex C).

# Flexible cellular polymeric materials — Polyurethane foam for load-bearing applications excluding carpet underlay — Specification

## 1 Scope

This International Standard specifies requirements for flexible load-bearing polyurethane foam of the polyether type.

It is applicable to flexible polyurethane cellular materials manufactured in block, sheet and strip form, in moulded and fabricated shapes, and as reconstituted material, used for load-bearing applications in general, but excluding carpet backing and underlay. It thus primarily relates to the quality of polyurethane foam used for comfort cushioning purposes.

The foam is classified according to performance during a fatigue test, indentation hardness index being used as a secondary means of grading the material.



This International Standard is not applicable to polyurethane foams foamed in place or to foams for use in heat-welded systems unless for load-bearing purposes.

Recommended applications for the range of flexible polyurethane foams covered by this International Standard are listed in Annex A.



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

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 2439:1997, *Flexible cellular polymeric materials — Determination of hardness (indentation technique)*

ISO 2440, *Flexible and rigid cellular polymeric materials — Accelerated ageing tests*

ISO 3385, *Flexible cellular polymeric materials — Determination of fatigue by constant-load pounding*

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

ISO 3795, *Road vehicles, and tractors and machinery for agriculture and forestry — Determination of burning behaviour of interior materials*

ISO 8307, *Flexible cellular polymeric materials — Determination of resilience by ball rebound*

ISO 23529, *Rubber — General procedures for preparing and conditioning test pieces for physical test methods*