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**Polymeric materials, cellular flexible -  
Polyurethane foam for load-bearing  
applications excluding carpet underlay -  
Specification**

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

**EESTI STANDARDI EESSÕNA****NATIONAL FOREWORD**

<p>Käesolev Eesti standard EVS-EN ISO 5999:2008 sisaldab Euroopa standardi EN ISO 5999:2007 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 27.02.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 01.11.2007.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 5999:2008 consists of the English text of the European standard EN ISO 5999:2007.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 27.02.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 01.11.2007.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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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  
polyuréthane pour utilisations soumises à des charges, à  
l'exclusion des revers de tapis - Specifications (ISO  
5999:2007)

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

This European Standard was approved by CEN on 12 October 2007.

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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 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.

# Contents

Page

Foreword.....	iv
<b>1</b> <b>Scope</b> .....	<b>1</b>
<b>2</b> <b>Normative references</b> .....	<b>1</b>
<b>3</b> <b>Classification</b> .....	<b>2</b>
<b>3.1</b> <b>Type</b> .....	<b>2</b>
<b>3.2</b> <b>Class</b> .....	<b>2</b>
<b>3.3</b> <b>Grade</b> .....	<b>6</b>
<b>4</b> <b>Material</b> .....	<b>7</b>
<b>5</b> <b>Construction</b> .....	<b>7</b>
<b>6</b> <b>Surface condition</b> .....	<b>7</b>
<b>7</b> <b>Odour</b> .....	<b>7</b>
<b>8</b> <b>Colour</b> .....	<b>7</b>
<b>9</b> <b>Component mass and density</b> .....	<b>7</b>
<b>10</b> <b>Dimensions</b> .....	<b>8</b>
<b>11</b> <b>Physical and chemical requirements</b> .....	<b>8</b>
<b>12</b> <b>Burning characteristics</b> .....	<b>10</b>
<b>13</b> <b>Test methods</b> .....	<b>10</b>
<b>13.1</b> <b>Test conditions</b> .....	<b>10</b>
<b>13.2</b> <b>Density</b> .....	<b>10</b>
<b>13.3</b> <b>Hardness</b> .....	<b>10</b>
<b>13.4</b> <b>Resilience</b> .....	<b>10</b>
<b>13.5</b> <b>Compression set</b> .....	<b>11</b>
<b>13.6</b> <b>Dynamic fatigue by constant-load pounding</b> .....	<b>11</b>
<b>13.7</b> <b>Tensile strength and elongation at break</b> .....	<b>11</b>
<b>13.8</b> <b>Burning behaviour</b> .....	<b>11</b>
<b>13.9</b> <b>Heat ageing</b> .....	<b>11</b>
<b>13.10</b> <b>Humidity ageing</b> .....	<b>11</b>
<b>14</b> <b>Marking</b> .....	<b>11</b>
<b>Annex A</b> (informative) <b>Typical applications for each class of material</b> .....	<b>12</b>
<b>Annex B</b> (informative) <b>Burning properties of flexible polyurethane foam and recommendations regarding its use</b> .....	<b>13</b>
<b>Annex C</b> (informative) <b>Main details of revision</b> .....	<b>15</b>

# 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*