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**Flexible cellular polymeric materials -  
Determination of tensile strength and  
elongation at break**

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Käesolev Eesti standard EVS-EN ISO 1798:2008 sisaldb Euroopa standardi EN ISO 1798:2008 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 1798:2008 consists of the English text of the European standard EN ISO 1798:2008.
Standard on kinnitatud Eesti Standardikeskuse 25.03.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 25.03.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kätesaadavaks tegemise kuupäev on 01.02.2008.	Date of Availability of the European standard text 01.02.2008.
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**ICS 83.100**

**Võtmesõnad:** cellular materials, cellular plastics, determination, elongation at break, flexible cellular materials, tensile strength, tensile tests, tests

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EUROPEAN STANDARD  
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English Version

Flexible cellular polymeric materials - Determination of tensile  
strength and elongation at break (ISO 1798:2008)

Matériaux polymères alvéolaires souples - Détermination  
de la résistance à la traction et de l'allongement à la  
rupture (ISO 1798:2008)

Weich-elastische polymere Schaumstoffe - Bestimmung  
der Zugfestigkeit und der Bruchdehnung (ISO 1798:2008)

This European Standard was approved by CEN on 12 January 2008.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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

## Foreword

This document (EN ISO 1798:2008) 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of an identical text or by endorsement, at the latest by August 2008, and conflicting national standards shall be withdrawn at the latest by August 2008.

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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### Endorsement notice

The text of ISO 1798:2008 has been approved by CEN as a EN ISO 1798:2008 without any modification.

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# Flexible cellular polymeric materials — Determination of tensile strength and elongation at break

**WARNING — Persons using this International Standard should be familiar with normal laboratory practice. This 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

This International Standard specifies a method for determining the strength and deformation properties of flexible cellular materials when a test piece is extended at a constant rate until it breaks.

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

ISO 7500-1:2004, *Metallic materials — Verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Verification and calibration of the force-measuring system*

ISO 9513, *Metallic materials — Calibration of extensometers used in uniaxial testing*

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

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### tensile strength

TS

maximum tensile stress applied when stretching a test piece to rupture

### 3.2

#### elongation at break

$E_b$

percentage elongation of a test piece at rupture