

### SLOVENSKI STANDARD SIST EN ISO 10066:1999

01-maj-1999

Penjeni polimerni materiali – Mehke pene – Določevanje deformacije pri stiskanju (ISO 10066:1991)

Flexible cellular polymeric materials - Determination of creep in compression (ISO 10066:1991)

Weichelastische polymere Schaumstoffe - Bestimmung des Kriechens bei Druckbeanspruchung (ISO 10066:1991) DARD PREVIEW

Matériaux polymeres alvéolaires souples - Détermination du fluage en compression (ISO 1006:1991)

SIST EN ISO 10066:1999

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Ta slovenski standard je istoveten z: SN ISO 10066-1999

ICS:

83.100 Penjeni polimeri Cellular materials

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**SIST EN ISO 10066:1999** 

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## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

**EN ISO 10066** 

November 1997

ICS 83.100

Descriptors: see ISO document

### English version

## Flexible cellular polymeric materials - Determination of creep in compression (ISO 10066:1991)

Matériaux polymères alvéolaires souples - Détermination du fluage en compression (ISO 1006:1991)

Weichelastische polymere Schaumstoffe - Bestimmung des Kriechens bei Druckbeanspruchung (ISO 10066:1991)

This European Standard was approved by CEN on 16 October 1997.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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### Foreword

The text of the International Standard from Technical Committee ISO/TC 61 "Plastics" of the International Organization for Standardization (ISO) has been taken over as an European Standard by Technical Committee CEN/TC 249 "Plastics", the secretariat of which is held by IBN.

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 1998, and conflicting national standards shall be withdrawn at the latest by May 1998.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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NOTE: Normative references to International Standards are listed in annex ZA (normative).

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Annex ZA (normative)
Normative references to international publications with their relevant European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

Publication	<u>Year</u>	<u>Title</u>	EN	<u>Year</u>
ISO 1923	1993	Cellular plastics and rubbers - Determination of linear dimensions	EN ISO 1923	1995

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# INTERNATIONAL STANDARD

ISO 10066

> First edition 1991-11-15

# Flexible cellular polymeric materials — Determination of creep in compression

iTeh Satériaux polymères alyéolaires souples — Détermination du fluage en (standards.iteh.ai)

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ISO 10066:1991(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.

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.

International Standard ISO 10066 was prepared by Technical Committee ISO/TC 45, Rubber and rubber products.

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## Flexible cellular polymeric materials — Determination of creep in compression

### Scope

This International Standard describes the procedure for determining the creep of a flexible cellular polymeric material when compressed by a static force, intended primarily for quality assurance in packaging applications.

The test may also be used to obtain design data. For example, a material that shows excessive creep is not likely to be selected for the manufacture of cushions to support packaged items because of the possibility of ds slippage during storage. The amount of creep and safe static stress that can be allowed depends on cushion thickness, package life and storage conditions. SIST EN ISO 10066 1000 The apparatus shall consist of two flat, smooth, but

3.3 percentage compression after recovery: The percentage loss in test piece thickness after 72 h under static stress followed by a 30 min recovery period.

### **Principle**

The change in deformation under a static stress with time is measured.

## **Apparatus**

https://standards.iteh.ai/catalog/standards/not/polished, plates?dat least one of which shall be  $9342\text{-c8aa}70\text{bfa}46\text{b/sist-en-setf}^1$  all girling, so arranged that they compress the test piece evenly in the vertical direction. The plates shall be capable of being loaded so that during the period of test the static stress does not change by more than + 1 %, and the separation of the plates shall be capable of being measured to within 0,1 mm. The compression stress required varies with the material, but is usually less than 10 kPa. The apparatus shall be placed on a substantial support to minimize the effects of vibration.

#### 2 **Normative reference**

The following standard contains provisions which. through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1923:1981, Cellular plastics and rubbers — Determination of linear dimensions.

### **Definitions**

For the purposes of this International Standard, the following definitions apply.

- 3.1 percentage creep strain: The change in compressive strain after 72 h exhibited by a test piece under the specified static stress as determined by measurements 15 min and 72 h after applying the stress.
- 3.2 compression stress: The static force per unit area of the original cross-section of the test piece.

### Test piece

6.1 The test piece shall be a right parallelepiped with the following dimensions:

length: 50 mm  $\pm$  1 mm

width: 50 mm  $\pm$  1 mm

mean thickness: within the range 20 mm to 30 mm

The thickness of the test piece shall be subject to a tolerance of  $\pm$  1 mm about the selected mean value.

The dimensions shall be measured in accordance with ISO 1923.