



# SLOVENSKI STANDARD

## SIST EN ISO 844:2021

01-junij-2021

Nadomešča:  
SIST EN ISO 844:2014

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**Penjeni polimerni materiali - Trde pene - Ugotavljanje lastnosti stiskanja (ISO 844:2021)**

Rigid cellular plastics - Determination of compression properties (ISO 844:2021)

Harte Schaumstoffe - Bestimmung der Druckeigenschaften (ISO 844:2021)

Plastiques alvéolaires rigides - Détermination des caractéristiques de compression (ISO 844:2021)

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**Ta slovenski standard je istoveten z: EN ISO 844:2021**

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**ICS:**

83.100

Penjeni polimeri

Cellular materials

**SIST EN ISO 844:2021**

**en,fr,de**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 844**

April 2021

ICS 83.100

Supersedes EN ISO 844:2014

English Version

**Rigid cellular plastics - Determination of compression properties (ISO 844:2021)**

Plastiques alvéolaires rigides - Détermination des caractéristiques de compression (ISO 844:2021)

Harte Schaumstoffe - Bestimmung der Druckeigenschaften (ISO 844:2021)

This European Standard was approved by CEN on 31 January 2021.

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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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## European foreword

This document (EN ISO 844:2021) has been prepared by Technical Committee ISO/TC 61 "Plastics" 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of an identical text or by endorsement, at the latest by October 2021, and conflicting national standards shall be withdrawn at the latest by October 2021.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 844:2014.

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, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## **iTeh STANDARD PREVIEW** **Endorsement notice** **(standards.iteh.ai)**

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# INTERNATIONAL STANDARD

**ISO  
844**

Seventh edition  
2021-03

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## **Rigid cellular plastics — Determination of compression properties**

*Plastiques alvéolaires rigides — Détermination des caractéristiques  
de compression*

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## ISO 844:2021(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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 10, *Cellular plastics*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 249, *Plastics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This seventh edition cancels and replaces the sixth edition (ISO 844:2014), which has been technically revised. The main changes compared to the previous edition are as follows:

- different extensometer gage lengths have been given for use with different specimen thicknesses;
- repeatability and reproducibility results from the interlaboratory test on Procedure B have been added for compressive strength and compressive modulus of elasticity measurements;
- [Annex A](#) has been added to provide information on the determination of the compressive modulus by means Procedure B.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

# Rigid cellular plastics — Determination of compression properties

## 1 Scope

This document specifies methods for determining the compressive strength and corresponding relative deformation, the compressive stress at 10 % relative deformation, and the compressive modulus of rigid cellular plastics.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 291, *Plastics — Standard atmospheres for conditioning and testing*

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

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

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

## 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

### 3.1

#### nominal relative deformation (procedure A)

$\varepsilon_c$

ratio of the reduction (in relation to its initial value) in thickness of the test specimen

Note 1 to entry: It is expressed as a percentage.

Note 2 to entry:  $\varepsilon_{cm}$  is the nominal relative deformation corresponding to  $\sigma_m$  (see 3.3).

### 3.2

#### relative deformation (procedure B)

$\varepsilon$

ratio of the reduction (in relation to its initial value) of extensometer gauge length

Note 1 to entry: It is expressed as a percentage.

Note 2 to entry:  $\varepsilon_m$  is the relative deformation corresponding to  $\sigma_m$  (see 3.3).