

Rigid cellular plastics - Determination of compression properties (ISO 844:2014)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 844:2014 sisaldab Euroopa standardi EN ISO 844:2014 inglisekeelset teksti.	This Estonian standard EVS-EN ISO 844:2014 consists of the English text of the European standard EN ISO 844:2014.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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ICS 83.100

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English Version

**Rigid cellular plastics - Determination of compression properties
(ISO 844:2014)**

Plastiques alvéolaires rigides - Détermination des
caractéristiques de compression (ISO 844:2014)

Harte Schaumstoffe - Bestimmung der Druckeigenschaften
(ISO 844:2014)

This European Standard was approved by CEN on 7 July 2014.

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Foreword

This document (EN ISO 844:2014) 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of an identical text or by endorsement, at the latest by February 2015, and conflicting national standards shall be withdrawn at the latest by February 2015.

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Endorsement notice

The text of ISO 844:2014 has been approved by CEN as EN ISO 844:2014 without any modification.

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Rigid cellular plastics — Determination of compression properties

1 Scope

This International Standard specifies a method of determining:

- a) the compressive strength and corresponding relative deformation,
- or
- b) the compressive stress at 10 % relative deformation,
- and
- c) when desired, the compressive modulus of rigid cellular plastics.

There are two procedures:

- Procedure A employs crosshead motion for determination of compressive properties. Procedure A is intended to be used when compressive stress at 10 % relative deformation has to be determined.
- Procedure B employs strain measuring devices mounted on the specimen (contact extensometer) or similar device which measures directly sample deformation. Procedure B is intended to be used when compressive modulus has to be determined.

NOTE Compressive strength (at maximum load) can be determined either with Procedure A and B.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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*

3 Terms and definitions

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

3.1

relative deformation

ε

ratio of the reduction (in relation to its initial value) in thickness of the test specimen (Procedure A) or of extensometer gauge length (Procedure B)

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

Note 2 to entry: ε_m is the relative deformation corresponding to σ_m (see 3.2).

3.2

compressive strength

σ_m

maximum compressive force F_m divided by the initial cross-sectional area of the test specimen when the relative deformation ε is < 10 %