



This is a preview of ISO 844:2026. [Click here to purchase the full version from the ANSI store.](#)

ISO 844

**Rigid cellular plastics —
Determination of compressive
properties**

*Plastiques alvéolaires rigides — Détermination des
caractéristiques de compression*

**Eighth edition
2026-06**

This is a preview of ISO 844:2026. Click [here](#) to purchase the full version from the ANSI store.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2026

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

This is a preview of ISO 844:2026. [Click here to purchase the full version from the ANSI store.](#)

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols	3
5 Principle	3
6 Apparatus	4
6.1 Testing machine	4
6.2 Devices for measuring displacement and force	4
6.2.1 Displacement	4
6.2.2 Force	4
6.2.3 Calibration	5
6.3 Devices for measuring the dimensions of the test specimens	5
7 Test specimens	5
7.1 Dimensions	5
7.2 Preparation	5
7.3 Number	5
7.4 Conditioning	5
8 Procedure	6
9 Expression of results	6
9.1 General	6
9.2 Compressive strength and compressive strains	8
9.2.1 Compressive strength	8
9.2.2 Nominal compressive strain (procedure A)	8
9.2.3 Compressive strain (procedure B)	8
9.3 Compressive stress at 10 % nominal compressive strain (procedure A)	8
9.4 Modulus	8
9.4.1 General	8
9.4.2 Nominal compressive modulus (procedure A)	9
9.4.3 Compressive modulus (procedure B)	9
10 Precision	9
10.1 Procedure A	9
10.2 Procedure B	10
11 Test report	10
Annex A (informative) Extensometer for Procedure B	12
Bibliography	13

This is a preview of ISO 844:2026. Click here to purchase the full version from the ANSI store.

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 document 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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.

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 eighth edition cancels and replaces the seventh edition (ISO 844:2021), which has been technically revised.

The main changes are as follows:

- the term “compression” changed to “compressive” throughout the document, including the title;
- the scope has been modified to include details of Procedure A and Procedure B;
- “relative deformation” has been changed to “compressive strain”;
- “nominal relative deformation” has been changed to “nominal compressive strain”;
- “necking” has been changed to the more descriptive “force-drop”.

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.

This is a preview of ISO 844:2026. [Click here to purchase the full version from the ANSI store.](#)

For the determination of compressive properties, it is common practice to apply a uniform compressive deformation to a standard test specimen, especially for quality assurance. However, the test specimen has a complex and inhomogeneous deformation state, under compression, which is not subjected to further analysis in such an evaluation. Measurement results are, therefore, not easily transferable to other test specimens or products. This document describes Procedure A, which determines the nominal compressive properties. Procedure B determines conventional compressive properties.

Procedure A employs relative plate displacement for the determination of compressive properties.

Procedure B employs displacement measuring devices directly positioned on the specimen (contact or optical extensometer) or similar devices that measure the specimen displacement.