



International

This is a preview of ISO 12817:2025. [Click here to purchase the full version from the ANSI store.](#)

Fibre-reinforced plastic composites — Determination of open-hole compression strength

*Composites plastiques renforcés de fibres — Détermination de la
résistance à la compression avec trou nu*

ISO 12817

**Second edition
2025-02**

This is a preview of ISO 12817:2025. [Click here to purchase the full version from the ANSI store.](#)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2025

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 12817:2025. [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 Principle	2
5 Apparatus	3
6 Test specimens	9
6.1 Shape and dimensions.....	9
6.2 Alternative specimen.....	9
6.3 Preparation of test plates and specimens.....	11
6.4 Inspection of test specimens.....	11
6.5 Number of test specimens.....	12
7 Conditioning	12
8 Procedure	12
8.1 Test atmosphere.....	12
8.2 Measurement of dimensions of the test specimens.....	12
8.3 Mounting of the test specimens.....	12
8.3.1 Method 1.....	12
8.3.2 Method 2.....	12
8.3.3 Method 3.....	12
8.4 Test speed.....	12
8.5 Preliminary loading.....	12
8.6 Loading.....	13
8.7 Recording.....	13
8.8 Failure mode.....	13
9 Calculation	14
9.1 Open-hole compressive strength.....	14
9.2 Expression of results.....	14
10 Precision	14
11 Test report	16
Bibliography	17

This is a preview of ISO 12817:2025. [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.

The document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 13, *Composites and reinforcement fibres*.

This second edition cancels and replaces the first edition (ISO 12817:2013), which has been technically revised.

The main changes are as follows:

- the measurement of the roundness of the hole has been added;
- the dimensions of the test specimens for method 2 has been corrected;
- the preliminary loading has been modified;
- the loading procedure has been added;
- the failure mode has been refined, and the figure of typical failure modes has been changed;
- the roundness of the hole in the test reports has been added.

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 12817:2025. [Click here to purchase the full version from the ANSI store.](#)

In preparing this document, reference has been made to other similar open-hole compression methods (JIS K 7093^[1], ASTM D6484/D6484M-09^[2]) and related methods, i.e. open-hole tension in ASTM D5766/D5766M6^[3] and pin-bearing in ISO 12815^[4].

The scope covers all current and future fibre-reinforced plastic composites meeting the requirements of this document. This document incorporates three methods that have different suitability and do not necessarily yield identical properties. All the methods use the maximum load to define the open-hole compressive strength.