INTERNATIONAL STANDARD

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Second edition
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Thermal insulating products for building applications — Determination of length and width

Produits isolants thermiques destinés aux applications du bâtiment — Détermination de la longueur et de la largeur

Reference number
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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).

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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 163, *Thermal performance and energy use in the built environment*, Subcommittee SC 1, *Test and measurement methods*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 88, *Thermal insulating materials and products*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 29465:2008), which has been technically revised.

The main changes are as follows:

— Clause 2, Normative references, has been added and the following numbering of clauses has been changed accordingly;

— some editorial corrections.

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.

Thermal insulating products for building applications — Determination of length and width

1 Scope

This document specifies the equipment and procedures for determining the length and width of full-size products. It is applicable to thermal insulating products.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
length
l
longer linear dimension of the major surface of the test specimen

3.2
width
b
shorter linear dimension of the major surface of the test specimen, measured at right angles to the length

4 Principle

A specimen is placed on a flat surface and direct linear measurement is made with a metal rule or a metal tape.

5 Apparatus

5.1 Flat surface.

5.2 Metal rule or **metal tape**, graduated in millimetres allowing a reading to 0,5 mm.

Any test equipment that provides the same result with at least the same uncertainty of measurement may be used.

6 Test specimens

6.1 Dimensions of test specimens

The test specimen shall be the full-size product.

6.2 Number of test specimens

The number of test specimens shall be as specified in the relevant product standard.

In the absence of a product standard or any other technical specification, the number of specimens may be agreed between parties.

6.3 Conditioning of test specimens

The test specimens shall be stored for at least 6 h at (23 ± 5) °C. In cases of dispute, they shall be stored at (23 ± 2) °C and (50 ± 5) % relative humidity (RH) for the time specified in the relevant product standard.

In tropical climates, different conditioning and testing conditions can be relevant. In this case, the conditions shall be (27 ± 2) °C and (65 ± 5) % RH and be clearly stated in the test report.

7 Procedure

7.1 Test conditions

The test shall be carried out at (23 ± 5) °C. In case of dispute, it shall be carried out at (23 ± 2) °C and (50 ± 5) % RH.

In tropical climates, different conditioning and testing conditions can be relevant. In this case, the conditions shall be (27 ± 2) °C and (65 ± 5) % RH and be clearly stated in the test report.

7.2 Test procedure

Lay the test specimen carefully on a flat surface.

For test specimens with both dimensions less than or equal to 1,5 m, take one measurement of length, *l*, and one measurement of width, *b,* at the positions shown in Figure 1.

For test specimens greater than 1,5 m long, make one additional width measurement for each extra metre of length, up to a maximum of five measurements, with the measurements equally spaced as shown in Figure 2. In this case, *b* is the mean value of all measured values of the width.

For test specimens greater than 1,5 m wide, make one additional length measurement for each extra 1 m of width, with the measurements equally spaced.

All lengths and widths shall be read to the nearest millimetre.

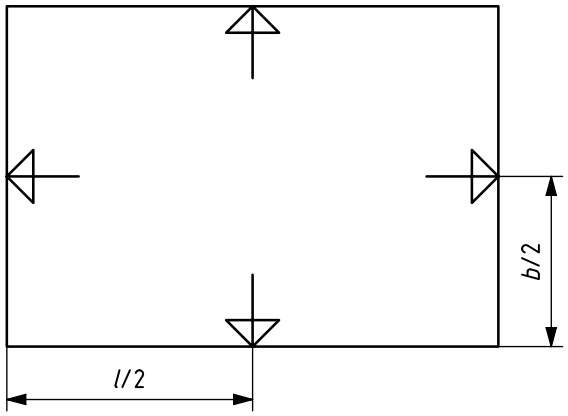
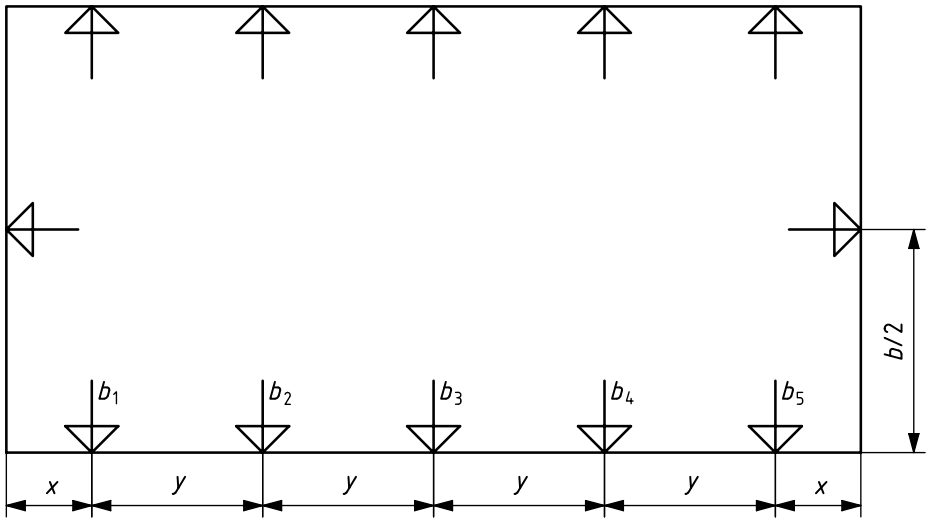


Figure 1 — Positions for measuring length and width of a test specimen where both l and $b \leq 1{,}5$ m



NOTE b is the mean value of all measured values of the width.

Figure 2 — Positions for measuring length and width of a test specimen where $l > 4{,}5$ m and $b \leq 1{,}5$ m

8 Calculation and expression of results

The length and width shall be expressed in millimetres, to the nearest millimetre, as the mean value for each specimen.

For products 3 m long or greater, the mean length value shall be reported to the nearest 5 mm.

9 Accuracy of measurement

NOTE It has not been possible to include a statement of the accuracy of the method in this version of this document, but it is intended to include such a statement when this document is next revised.

10 Test report

The test report shall include the following information:

a) reference to this document, i.e. ISO 29465:2022;

b) product identification:

   1) product name, factory, manufacturer or supplier;

   2) production code number;

   3) type of product;

   4) packaging;

   5) form in which the product arrived at the laboratory;

   6) other information as appropriate, e.g. nominal thickness, nominal density;

c) test procedure:

   1) pre-test history and sampling (name of person taking the samples and sampling site);

   2) conditioning;

   3) deviations from Clauses 6 and 7, if any;

   4) conditioning and testing conditions in tropical climates, if applicable;

   5) date of the test;

   6) general information relating to the test;

   7) any occurrences that can have affected the results;

d) results:

   1) all individual values and the mean value for each dimension.

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