



SLOVENSKI STANDARD
oSIST prEN ISO 29466:2021
01-julij-2021

Toplotno izolacijski proizvodi za uporabo v gradbeništvu - Ugotavljanje debeline (ISO/DIS 29466:2021)

Thermal insulating products for building applications - Determination of thickness (ISO/DIS 29466:2021)

Wärmedämmstoffe für das Bauwesen - Bestimmung der Dicke (ISO/DIS 29466:2021)

Produits isolants thermiques destinés aux applications du bâtiment - Détermination de l'épaisseur (ISO/DIS 29466:2021)

Ta slovenski standard je istoveten z: prEN ISO 29466

ICS:

91.100.60	Materiali za toplotno in zvočno izolacijo	Thermal and sound insulating materials
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en,fr,de

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DRAFT INTERNATIONAL STANDARD

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Thermal insulating products for building applications — Determination of thickness

Produits isolants thermiques destinés aux applications du bâtiment — Détermination de l'épaisseur

ICS: 91.100.60

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

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Contents

Page

Foreword	iv
Introduction.....	Fehler! Textmarke nicht definiert.
1 Scope	1
2 Terms and definitions	1
3 Principle.....	1
4 Apparatus.....	1
5 Test specimens.....	2
6 Procedure	3
7 Calculation and expression of results	4
8 Accuracy of measurement.....	5
9 Test report.....	5
Annex A (normative) Preparation of test specimens for compressed products	6
Annex B (normative) Examples of other methods for the determination of thickness	7

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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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This document was prepared by Technical Committee 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 29466:2008) and the standard EN 823:2013, which has been technically revised. The main changes compared to the previous edition are as follows:

Clause 5.3 conditioning of test specimen to reflect the conditions for tropical countries;

Clause 6.1 test conditions and

Clause 9 test report

Thermal insulating products for building applications — Determination of thickness

1 Scope

This International Standard specifies the equipment and procedures for determining the thickness of full-size products. It is applicable to thermal insulating products.

2 Terms and definitions

For the purposes of this document, the following term and definition apply.

2.1

thickness

d

linear dimension measured perpendicularly to the length and width plane

3 Principle

The distance is measured between a hard, flat reference surface on which the test specimen rests and a pressure plate resting freely on the top face of the specimen.

4 Apparatus

4.1 Measuring device, comprised of

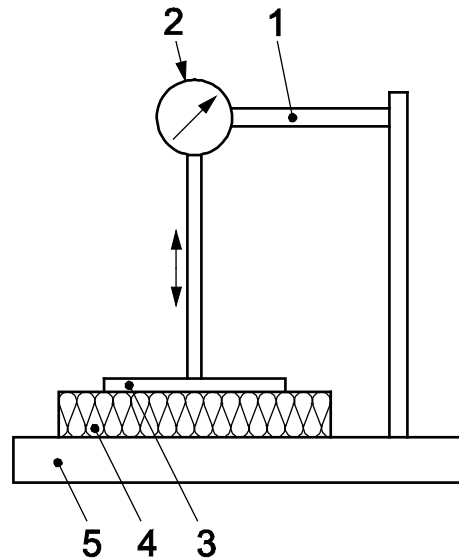
- a) a dial gauge, capable of measuring to an accuracy of at least 0,5 mm and mounted on a rigid frame fastened to a flat rigid base plate that is at least as large as the test specimen; and
- b) a square pressure plate, 200 mm square, which exerts a total pressure on the test specimen of either $(50 \pm 1,5)$ Pa or (250 ± 5) Pa (including the force exerted by the dial gauge).

NOTE If a higher accuracy is required, it is specified in the relevant product standard or agreed between parties.

An example of a suitable apparatus is given in Figure 1.

The pressure shall be as given in the relevant product standard.

Any test equipment that provides the same result with at least the same accuracy may be used.

**Key**

- 1 rigid frame
- 2 dial gauge
- 3 square pressure plate
- 4 test specimen
- 5 flat rigid baseplate

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Figure 1 — Example of an apparatus suitable for determining the thickness

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5 Test specimens

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5.1 Dimensions of test specimens

The test specimen shall be the full-size product, but it can be necessary to cut the product into pieces of appropriate size.

5.2 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, the number of test specimens may be agreed upon.

5.3 Conditioning of test specimens

The test specimens shall be stored for at least 6 h at $(23 \pm 5) ^\circ\text{C}$. In cases of dispute, they shall be stored at $(23 \pm 2) ^\circ\text{C}$ and $(50 \pm 5) \%$ relative humidity for the time specified in the relevant product standard.

In tropical countries, different conditioning and testing conditions can be relevant. In this case, the conditions shall be $27 ^\circ\text{C}$ and 65% RH and be stated clearly in the test report.

5.4 Preparation of test specimens

Any facings or coatings shall be retained.

For compressed products, the preparation of test specimens shall be in accordance with Annex A.

6 Procedure

6.1 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) % relative humidity.

In tropical countries, different conditioning and testing conditions can be relevant. In this case, the conditions shall be 27 °C and 65 % RH and be stated clearly in the test report.

6.2 Test procedure

Lay the test specimen carefully on the baseplate, ensuring that the measuring area is in contact with the baseplate. Test specimens faced or coated on one side shall be placed with the facing or coating against the baseplate. Place the pressure plate on the specimen, exerting a total pressure of either $(50 \pm 1,5)$ Pa or (250 ± 5) Pa at a designated position with the dial gauge centrally located.

Take two measurements for test specimens of lengths less than or equal to 600 mm, four measurements for test specimens greater than 600 mm and less than or equal to 1 500 mm in length, and one additional measurement for each additional 500 mm exceeding 1 500 mm in length.

Take the measurements d_1, d_2, \dots and d_n at positions on the surface, as shown in Figure 2.

Measure to an accuracy in accordance with 4.1.

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Dimensions in millimetres

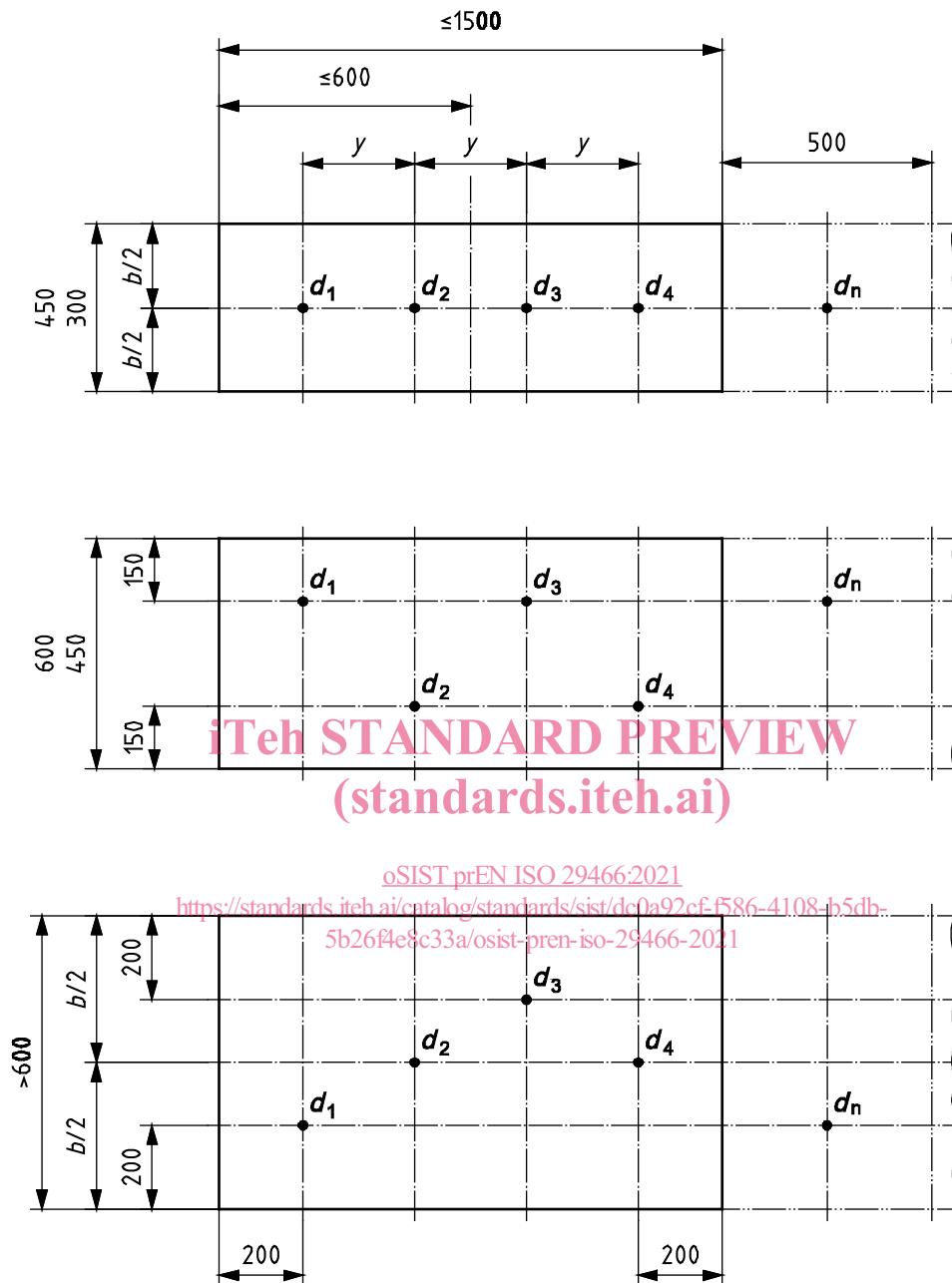


Figure 2 — Positions for measurements

7 Calculation and expression of results

The thickness of the test specimen shall be expressed in millimetres, to the nearest millimetre, as the mean value of the measurements made at all the points for the test specimen (see Figure 2).

NOTE If a higher accuracy is required, it is specified in the relevant product standard or agreed between parties.