SLOVENSKI STANDARD
SIST EN 825:1997

01-december-1997

Toplotno izolacijski proizvodi za uporabo v gradbeništvu - Določanje ploskosti

Thermal insulating products for building applications - Determination of flatness

Wärmedämmstoffe für das Bauwesen - Bestimmung der Ebenheit

Produits isolants thermiques destinés aux applications du bâtiment - Détermination de la planéité

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English version

Thermal insulating products for building applications - Determination of flatness

Produits isolants thermiques destinés aux applications du bâtiment - Détermination de la planéité

Wärmedämmstoffe für das Bauwesen - Bestimmung der Ebenheit

This European Standard was approved by CEN on 1994-07-22. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

This European Standard has been prepared by CEN/TC 88 "Thermal Insulating Materials and Products", the secetariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by January 1995, and conflicting national standards shall be withdrawn at the latest by December 1996.

This European Standard is one of a series of standards which specify test methods for determining dimensions and properties of thermal insulating materials and products. It supports a series of product standards for thermal insulating materials and products which derive from the Council Directive of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products (Directive 89/106/EEC) through the consideration of the essential requirements.

This European Standard has been drafted for applications in buildings but it may also be used in other areas where it is relevant.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EC Directive(s).

In pursuance of Resolution BT 20/1993 Revised, CEN/TC 88 has proposed defining the standards listed below as a European "package" of standards, setting December 31, 1996 as the date of withdrawal (dow) of national standards which conflict with the European Standards of this package.

The "package" of standards comprises the following group of inter-related standards on test methods for determining dimensions and properties of thermal insulation materials and products, all of which come within the scope of CEN/TC88:

EN 822	Thermal insulating products for building applications - Determination of length and width
EN 823	Thermal insulating products for building applications - Determination of thickness
EN 824	Thermal insulating products for building applications - Determination of squareness
EN 825	Thermal insulating products for building applications - Determination of flatness
prEN 826	Thermal insulating products for building applications - Determination of compression behaviour
	Thermal insulating products for building applications - Determination of the apparent density
	Thermal insulating products for building applications - Determination of dimension and shape stability under constant normal laboratory conditions (23°C/50% relative humidity)

1) Standards are in preparation

Thermal insulating products for building applications - Determination of dimensional stability under specified temperature and humidity conditions [1)]

Thermal insulating products for building applications - Determination of deformation under specified compressive load and temperature conditions [1)]

Thermal insulating products for building applications - Determination of compressive creep [1)]

Thermal insulating products for building applications - Determination of tensile strength perpendicular to faces [1)]

Thermal insulating products for building applications - Determination of tensile strength parallel to faces [1)]

Thermal insulating products for building applications - Determination of short term water absorption by partial immersion [1)]

Thermal insulating products for building applications - Determination of linear dimensions of test specimens [1)]

Thermal insulating products for building applications - Determination of water vapour transmission properties [1)]

Thermal insulating products for building applications - Determination of long term water absorption by immersion [1)]

Thermal insulating products for building applications - Determination of long term water absorption by diffusion [1)]

Thermal insulating products for building applications - Determination of bending behaviour [1)]

Thermal insulating products for building applications - Determination of shear behaviour [1)]

Thermal insulating products for building applications - Determination of freeze-thaw resistance [1)]

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

1) Standards are in preparation

1 Scope

This European Standard specifies the equipment and procedures for determining the deviation from flatness for full-size products. It is applicable to thermal insulating products.

2 Normative references

This European Standard contains no normative references.

3 Definition

For the purposes of this standard, the following definition applies:

deviation from flatness: The maximum distance between the product placed on a flat surface with the convex side uppermost and the flat surface.

4 Principle

The maximum distance between the product placed on a flat surface and the flat surface is measured.

5 Apparatus

5.1 A flat surface.

5.2 A metal rule or metal tape graduated in millimetres and permitting reading to 0,5 mm;

5.3 A rigid frame with a movable measuring device consisting of a disc with a diameter of 30 mm fixed to a graduated pin or a dial gauge (graduated to at least 0,5 mm) applying a load of (2,0 + 0,1)N.

NOTE: Any test equipment which provides the same result with at least the same accuracy 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.

NOTE: In the absence of a product standard the number of test specimens may be agreed between parties.

6.3 Conditioning of test specimens

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

7 Procedure

7.1 Test conditions

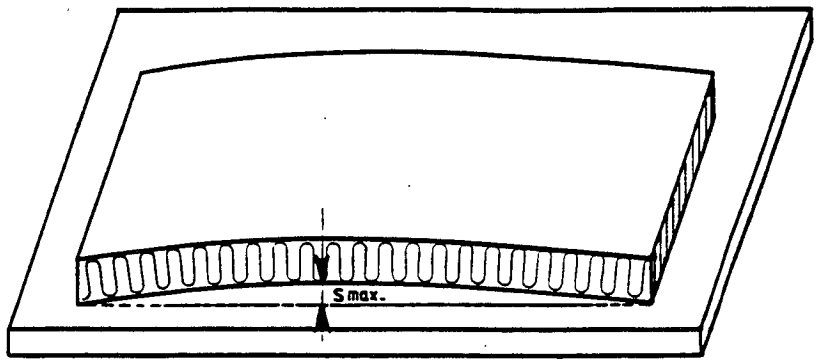
The test should be carried out at (23 + 5)°C. In case of dispute it shall be carried out at (23 +2)°C and (50 + 5)% relative humidity.

7.2 Test procedure

7.2.1 Lay the test specimen with the convex face, if any, uppermost on a flat surface. If there is a visible deviation from flatness only along the length or only along the width make the measurement in accordance with 7.2.2 (see figures 1a, 1b). If there is a flatness deviation along both the length and width (warped products), make the measurement in accordance with 7.2.3 (see figure 2).

7.2.2 Using the metal tape or rule, measure the maximum distance S_{max} to the nearest 0,5 mm from the underside of the test specimen edge to the flat surface.

7.2.3 Locate the maximum and minimum distances from the flat surface using the measuring device (see 5.3) as shown in figure 2. At these positions read the distances Y_{max} and Y_{min} to the flat surface to the nearest 0,5 mm. If the test specimen only rests on three points, there exists the possibility of alternative flatness measurements, all shall be measured.



a) Measurement of deviation from flatness in length

b) Measurement of deviation from flatness in width

Figure 1: Measurement of deviation from flatness

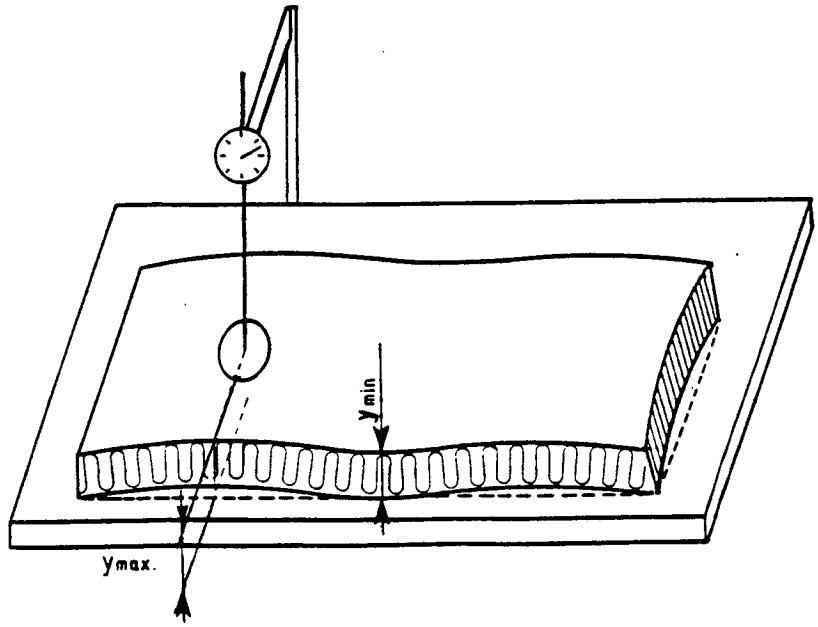


Figure 2: Location of maximum and minimum distances