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Värmeisoleringsprodukter för byggnader – Bestämning av tjocklek

Thermal insulating products for building applications – Determination of thickness

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Europastandarden EN 823:2013 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN 823:2013.

Denna standard ersätter SS-EN 823, utgåva 1.

The European Standard EN 823:2013 has the status of a Swedish Standard. This document contains the official version of EN 823:2013.

This standard supersedes the Swedish Standard SS-EN 823, edition 1.

Upplysningar om sakinnehållet i standarden lämnas av SIS, Swedish Standards Institute, telefon 08-555 520 00. Standarder kan beställas hos SIS Förlag AB som även lämnar allmänna upplysningar om svensk och utländsk standard.

Information about the content of the standard is available from the Swedish Standards Institute (SIS), telephone +46 8 555 520 00. Standards may be ordered from SIS Förlag AB, who can also provide general information about Swedish and foreign standards.

Denna standard är framtagen av kommittén för Material och konstruktioner, SIS/TK 189/AG 1.

Har du synpunkter på innehållet i den här standarden, vill du delta i ett kommande revideringsarbete eller vara med och ta fram andra standarder inom området? Gå in på www.sis.se - där hittar du mer information.

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 823

March 2013

ICS 91.100.60

Supersedes EN 823:1994

English Version

Thermal insulating products for building applications - Determination of thickness

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

Wärmedämmstoffe für das Bauwesen - Bestimmung der Dicke

This European Standard was approved by CEN on 15 December 2012.

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 CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Ref. No. EN 823:2013: E

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Foreword

This document (EN 823:2013) has been prepared by Technical Committee CEN/TC 88 “Thermal insulating materials and products”, the secretariat 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 September 2013, and conflicting national standards shall be withdrawn at the latest by September 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 823:1994.

The revision of this standard contains no major changes, only minor corrections and clarifications of an editorial nature.

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 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 (89/106/EEC) through the consideration of the essential requirements.

This European Standard gives the reference method. Other methods may be used (e.g. for quality control), provided a correlation has been established with this reference method; Annex B gives some examples of such methods.

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

This European test standard is one of the following group of interrelated standards on test methods for determining dimensions and properties of thermal insulation materials and products, all of which fall within the scope of CEN/TC 88:

— 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*

— EN 826, *Thermal insulating products for building applications — Determination of compression behaviour*

— EN 1602, *Thermal insulating products for building applications — Determination of the apparent density*

— EN 1603, *Thermal insulating products for building applications — Determination of dimensional stability under constant normal laboratory conditions (23 °C/50 % relative humidity)*

— EN 1604, *Thermal insulating products for building applications — Determination of dimensional stability under specified temperature and humidity conditions*

— EN 1605, *Thermal insulating products for building applications — Determination of deformation under specified compressive load and temperature conditions*

— EN 1606, *Thermal insulating products for building applications — Determination of compressive creep*

— EN 1607, *Thermal insulating products for building applications — Determination of tensile strength perpendicular to faces*

— EN 1608, *Thermal insulating products for building applications — Determination of tensile strength parallel to faces*

— EN 1609, *Thermal insulating products for building applications — Determination of short-term water absorption by partial immersion*

— EN 12085, *Thermal insulating products for building applications — Determination of linear dimensions of test specimens*

— EN 12086, *Thermal insulating products for building applications — Determination of water vapour transmission properties*

— EN 12087, *Thermal insulating products for building applications — Determination of long-term water absorption by immersion*

— EN 12088, *Thermal insulating products for building applications — Determination of long-term water absorption by diffusion*

— EN 12089, *Thermal insulating products for building applications — Determination of bending behaviour*

— EN 12090, *Thermal insulating products for building applications — Determination of shear behaviour*

— EN 12091, *Thermal insulating products for building applications — Determination of freeze-thaw resistance*

— EN 12429, *Thermal insulating products for building applications — Conditioning to moisture equilibrium under specified temperature and humidity conditions*

— EN 12430, *Thermal insulating products for building applications — Determination of behaviour under point load*

— EN 12431, *Thermal insulating products for building applications — Determination of thickness for floating floor insulating products*

— EN 13793, *Thermal insulating products for building applications — Determination of behaviour under cyclic loading*

— EN 13820, *Thermal insulating materials for building applications — Determination of organic content*

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

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

2 Normative references

This European Standard contains no normative references.

3 Terms and definitions

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

3.1
thickness
d
linear dimension measured perpendicularly to the length and width plane

4 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 test specimen.

5 Apparatus

5.1 Measuring device, comprising a dial gauge and a square pressure plate.

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

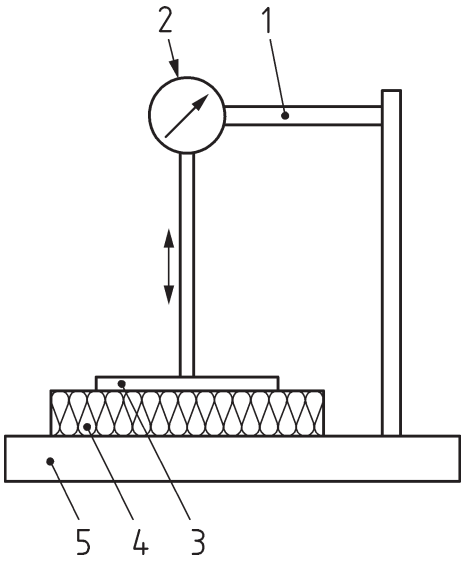
5.1.1 Dial gauge, capable of measuring to an accuracy of at least 0,5 mm[1)] and mounted on a rigid frame fastened to a flat rigid base plate which is at least as large as the test specimen.

5.1.2 Pressure plate, 200 mm square, which exerts a total pressure on the test specimen of either (50 ± 1,5) Pa or (250 ± 5) Pa (including the force exerted by the dial gauge).

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

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

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



Key

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

Figure 1 — Example of suitable apparatus for determining the thickness

6 Test specimens

6.1 Dimensions of test specimens

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

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, the number of test 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 for the time specified in the relevant product standard.

6.4 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.

7 Procedure

7.1 Test conditions

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

7.2 Test procedure

Lay the test specimen carefully on the flat rigid base plate, ensuring that the measuring area is in contact with the base plate. Test specimens faced or coated on one side shall be placed with the facing or coating against the base plate. Place the pressure plate on the test specimen, exerting a total pressure of either (50 ± 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, ... and d_n at positions on the surface, as shown in Figure 2.

Measure to an accuracy in accordance with 5.1.