

BS EN 822:2013



BSI Standards Publication

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

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**National foreword**

This British Standard is the UK implementation of EN 822:2013. It supersedes BS EN 822:1995 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/540, Energy performance of materials components and buildings.

A list of organizations represented on this committee can be obtained on request to its secretary.

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EUROPEAN STANDARD

**EN 822**

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2013

ICS 91.100.60

Supersedes EN 822:1994

English Version

## 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

Wärmedämmstoffe für das Bauwesen - Bestimmung der  
Länge und Breite

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.

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## Foreword

This document (EN 822:2013) 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of an identical text or by endorsement, at the latest by September 2013, and conflicting national standards shall be withdrawn at the latest by September 2013.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 822:1994.

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

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 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 length and width 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 terms and definitions apply.

### 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 test 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 A flat surface.

### 5.2 Metal rule or metal tape, graduated in millimetres and permitting reading to an accuracy of 0,5 mm.

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.

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  $(23 \pm 5)$  °C. In cases of dispute, they shall be stored at  $(23 \pm 2)$  °C and  $(50 \pm 5)$  % relative humidity for the time specified in the relevant product standard.

## 7 Procedure

### 7.1 Test conditions

The test shall be carried out at  $(23 \pm 5) ^\circ\text{C}$ . In cases of dispute, it shall be carried out at  $(23 \pm 2) ^\circ\text{C}$  and  $(50 \pm 5) \%$  relative humidity.

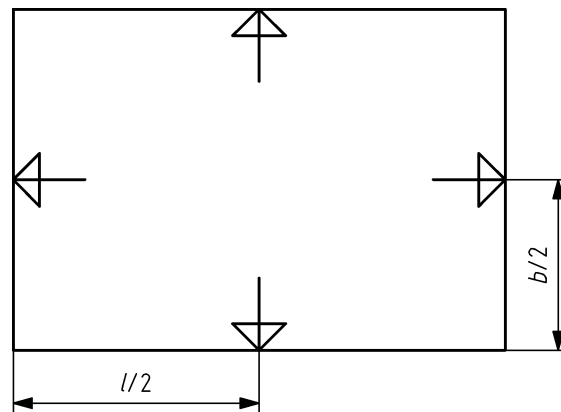
### 7.2 Test procedure

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 in length, 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.

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

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



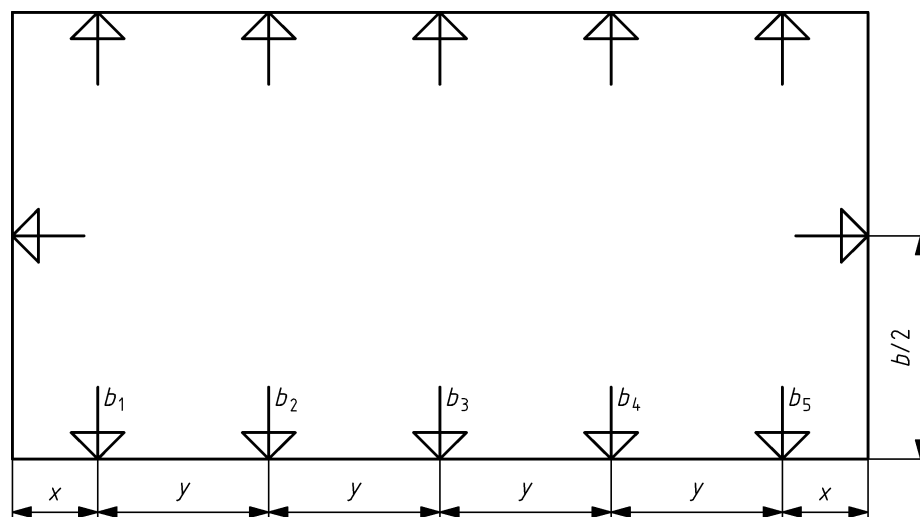
#### Key

$l$  length

$b$  width

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





### Key

$b$  mean value of all measured values of width

**Figure 2 — Positions for measuring length and width of a test specimen, where  $l \geq 4,5$  m and  $b \geq 1,5$  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 test specimen.

For products 3 m in length or greater, the length value shall be rounded 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 edition of the standard, but it is intended to include such a statement when the standard is next revised.

## 10 Test report

The test report shall include the following information:

- a) reference to this European Standard;
- b) product identification:
  - 1) product name, factory, manufacturer or supplier;
  - 2) production code number;
  - 3) type of product;
  - 4) packaging;
  - 5) the 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 (e.g. who sampled and place of sampling);

- 2) conditioning;
  - 3) deviations from Clauses 6 and 7, if any;
  - 4) date of test;
  - 5) general information relating to the test;
  - 6) any occurrences which may have affected the results. Information about the apparatus and identity of the technician should be available in the laboratory, but it need not be recorded in the report;
- d) results: all individual values and the mean value for each dimension.



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