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Thermal insulation products for buildings - Factory y() pr. made wood wool (WW) products - Specification



### **EESTI STANDARDI EESSÕNA**

### **NATIONAL FOREWORD**

	This Estonian standard EVS-EN 13168:2012 consists
Euroopa standardi EN 13168:2012 ingliskeelset	of the English text of the European standard EN
teksti.	13168:2012.
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,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	This standard has been endorsed with a notification
avaldamisega EVS Teatajas.	published in the official bulletin of the Estonian Centre
	for Standardisation.
Euroopa standardimisorganisatsioonid on teinud	Date of Availability of the European standard is
,	28.11.2012.
kättesaadavaks 28.11.2012.	2011 1120 121
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ICS 91.100.60

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## EUROPEAN STANDARD NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

EN 13168

November 2012

ICS 91.100.60

Supersedes EN 13168:2008

### **English Version**

# Thermal insulation products for buildings - Factory made wood wool (WW) products - Specification

Produits isolants thermiques pour le bâtiment - Produits manufacturés en laine de bois (WW) - Spécification

Wärmedämmstoffe für Gebäude - Werkmäßig hergestellte Produkte aus Holzwolle (WW) - Spezifikation

This European Standard was approved by CEN on 6 October 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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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

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### **Foreword**

This document (EN 13168:2012) 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 May 2013, and conflicting national standards shall be withdrawn at the latest by May 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 13168:2008.

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

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

Compared with EN 13168:2008, the main changes are:

- a) better harmonisation between the individual standards of the package (EN 13162 to EN 13171) on definitions, requirements, classes and levels;
- b) new normative annex on multi-layered products;
- c) changes on some editorial and technical content and addition of information on some specific items such as for MW: lamella, compressibility, etc;
- d) addition of links to EN 15715, Thermal insulation products Instruction for mounting and fixing for reaction to fire testing Factory made products;
- e) changes of Annex ZA.

This standard is one of a series of standards for insulation products used in buildings, but this standard may be used in other areas where appropriate.

In pursuance of Resolution BT 20/1993 revised, CEN/TC 88 have proposed defining the standards listed below as a package of documents.

The package of standards comprises the following group of interrelated standards for the specifications of factory made thermal insulation products, all of which come within the scope of CEN/TC 88:

EN 13162, Thermal insulation products for buildings — Factory made mineral wool (MW) products — Specification

EN 13163, Thermal insulation products for buildings — Factory made expanded polystyrene (EPS) products — Specification

EN 13164, Thermal insulation products for buildings — Factory made extruded polystyrene foam (XPS) products — Specification

EN 13165, Thermal insulation products for buildings — Factory made rigid polyurethane foam (PU) products — Specification

EN 13166, Thermal insulation products for buildings — Factory made phenolic foam (PF) products — Specification

EN 13167, Thermal insulation products for buildings — Factory made cellular glass (CG) products — Specification

EN 13168, Thermal insulation products for buildings — Factory made wood wool (WW) products — Specification

EN 13169, Thermal insulation products for buildings — Factory made expanded perlite board (EPB) products — Specification

EN 13170, Thermal insulation products for buildings — Factory made products of expanded cork (ICB) — Specification

EN 13171, Thermal insulation products for buildings — Factory made wood fibre (WF) products — Specification

The reduction in energy used and emissions produced during the installed life of insulation products exceeds by far the energy used and emissions made during the production and disposal processes.

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, a, L. Switze. 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 requirements for factory made wood wool (WW) products, with or without facings or coatings, which are used for the thermal insulation of buildings. The products are manufactured in the form of boards or slabs.

This European Standard also specifies the requirements for the factory made composite products, made from wood wool in combination with other insulation materials.

This European Standard describes product characteristics and includes procedures for testing, evaluation of conformity, marking and labelling.

Products covered by this European Standard are also used in prefabricated thermal insulation systems and composite panels; the performance of systems incorporating these products is not covered.

This standard does not specify the required level of a given property to be achieved by a product to demonstrate fitness for purpose in a particular application. The levels and classes required for a given application are to be found in regulations or non-conflicting standards.

Products with a declared thermal resistance lower than 0,15 m<sup>2</sup>·K/W or a declared thermal conductivity greater than 0,100 W/(m·K) at 10 °C are not covered by this standard.

This European Standard does not cover in situ insulation products and products intended to be used for the insulation of building equipment and industrial installations.

### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

EN 12086:1997, Thermal insulating products for building applications — Determination of water vapour transmission properties

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

EN 12667, Thermal performance of building materials and products — Determination of thermal resistance by means of guarded hot plate and heat flow meter methods — Products of high and medium thermal resistance

EN 12939, Thermal performance of building materials and products — Determination of thermal resistance by means of guarded hot plate and heat flow meter methods — Thick products of high and medium thermal resistance

EN 13172:2012, Thermal insulation products — Evaluation of conformity

EN 13501-1, Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests

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

EN 13823, Reaction to fire tests for building products — Building products excluding floorings exposed to the thermal attack by a single burning item

EN 15715:2009, Thermal insulation products — Instructions for mounting and fixing for reaction to fire testing — Factory made products

EN ISO 354, Acoustics — Measurement of sound absorption in a reverberation room (ISO 354)

EN ISO 1182, Reaction to fire tests for building products — Non-combustibility test (ISO 1182)

EN ISO 1716, Reaction to fire tests for products — Determination of the gross heat of combustion (calorific value) (ISO 1716)

EN ISO 9229:2007, Thermal insulation — Vocabulary (ISO 9229:2007)

EN ISO 10456, Building materials and products — Hygrothermal properties — Tabulated design values and procedures for determining declared and design thermal values (ISO 10456)

EN ISO 11654, Acoustics — Sound absorbers for use in buildings — Rating of sound absorption (ISO 11654)

EN ISO 11925-2, Reaction to fire tests for building products — Ignitability of building products subjected to direct impingement of flame – Part 2: Single-flame source test (ISO 11925-2)

ISO 16269-6:2005, Statistical interpretation of data — Part 6 Determination of statistical tolerance intervals

### 3 Terms, definitions, symbols, units and abbreviated terms

#### 3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 9229:2007 apply with exception or in addition of the following: