

STN	Tepelnoizolačné výrobky pre budovy. Prefabrikované výrobky z drevitej vlny (WW). Špecifikácia.	STN EN 13168+A1 72 7207
------------	---	---

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

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/15

Obsahuje: EN 13168:2012+A1:2015

Oznámením tejto normy sa od 01.12.2015 ruší
STN EN 13168 (72 7207) z apríla 2013

120961

Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, 2015
Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy
rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

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 and includes Amendment 1 approved by CEN on 15 December 2014.

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.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
Foreword.....	4
1 Scope	6
2 Normative references	6
3 Terms, definitions, symbols, units and abbreviated terms	7
3.1 Terms and definitions	7
3.2 Symbols, units and abbreviated terms.....	9
4 Requirements	11
4.1 General.....	11
4.2 For all applications	11
4.3 For specific applications.....	15
5 Test methods.....	19
5.1 Sampling.....	19
5.2 Conditioning.....	19
5.3 Testing	19
6 Designation code	21
7 Assessment and Verification of the Constancy of Performance (AVCP)	22
7.1 General.....	22
7.2 Product Type Determination (PTD).....	22
7.3 Factory Production Control (FPC)	23
8 Marking and labelling	23
Annex A (normative) Determination of the declared values of thermal resistance and thermal conductivity.....	25
A.1 General.....	25
A.2 Input data.....	25
A.3 Declared values.....	25
Annex B (normative) \square_{A1} Product type determination \square_{A1} (\square_{A1} PTD \square_{A1}) and factory production control (FPC)	28
Annex C (normative) WW multi-layered insulation products	32
C.1 General.....	32
C.2 Requirements	32
C.3 Test methods.....	33
C.4 Evaluation of conformity.....	33
Annex D (normative) Specific test methods.....	34
D.1 Chloride content	34
D.2 Load resistance.....	34
D.3 Impact resistance.....	35
Annex E (normative) Determination of the thermal conductivity in relation to moisture content.....	37
Annex ZA (informative) \square_{A1} Clauses of this European Standard addressing the provisions of the EU Construction Products Regulation \square_{A1}.....	39
ZA.1 Scope and relevant characteristics	39

ZA.2	Procedures for AVCP of factory made wood wool products	40
ZA.3	CE Marking and labelling	47
	Bibliography	49
Tables		
Table 1	Classes for length and width tolerances	12
Table 2	Classes for thickness tolerances	13
Table 3	Levels for deviation from flatness	13
Table 4	Levels for chloride content	13
Table 5	Levels for tensile strength perpendicular to faces	14
Table 6	Levels for the deviation from squareness	15
Table 7	Levels for compressive stress or compressive strength	16
Table 8	Levels for bending strength	17
Table 9	Levels for short term water absorption	17
Table 10	Test methods, test specimens and conditions	20
Table A.1	Values for k for one sided 90 % tolerance interval with a confidence level of 90 %	27
Table B.1	Minimum product testing frequencies	28
Table B.2	Minimum product testing frequencies for the reaction to fire characteristics (1 of 2)	30
Table ZA.1	Relevant clauses for factory made wood wool and intended use	39
Table ZA.2	Systems of AVCP	41
Table ZA.3.1	Assignment of AVCP tasks for factory made wood wool products under system 1 for reaction to fire and system 3 (see Table ZA.2)	41
Table ZA.3.2	Assignment of AVCP tasks for factory made wood wool products under system 3 (see Table ZA.2)	43
Table ZA.3.3	Assignment of AVCP tasks for factory made wood wool products under combined system 4 for reaction to fire and system 3 (see Table ZA.2)	43
Figures		
Figure D.1	Test rig for load resistance of slabs	35
Figure D.2	Test rig for impact resistance of slabs	36
Figure E.1	Example of a graphic representation of “f_ψ”	38
Figure ZA.1	Example CE marking information of products under AVCP system 1 and system 3	48

Foreword

This document (EN 13168:2012+A1:2015) 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 August 2015, and conflicting national standards shall be withdrawn at the latest by November 2016.

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 A1 EN 13168:2012 A1.

This document includes Amendment 1 approved by CEN on 2014-12-15.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

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).

A1 For relationship with EU Construction Products Regulation (CPR), see informative Annex ZA, which is an integral part of this standard. A1

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.

A1 Amendment 1 modifies EN 13168:2012 identifying those clauses of the standard which are needed for the compliance of the European Standard with the Construction Products Regulation (CPR).

This amendment introduces

- f) an addition to the foreword;
- g) an addition in 3.2;
- h) an addition in 4.3.12;
- i) modification of Clause 7;
- j) modification of Clause 8;
- k) modification of Annex B;

l) a new 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, 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 $0,15 \text{ m}^2\cdot\text{K}/\text{W}$ or a declared thermal conductivity greater than $0,100 \text{ W}/(\text{m}\cdot\text{K})$ at $10 \text{ }^\circ\text{C}$ 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*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN