



SLOVENSKI STANDARD
SIST EN 13168:2013+A1:2015/oprA2:2018
01-november-2018

**Toplotnoizolacijski proizvodi za stavbe - Proizvodi iz lesne volne (WW) -
Specifikacija**

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

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

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

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ICS:

91.100.60

Materiali za toplotno in
zvočno izolacijo

Thermal and sound insulating
materials

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EUROPEAN STANDARD
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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 draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 88.

This draft amendment A2, if approved, will modify the European Standard EN 13168:2012+A1:2015. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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FOR STANDARD PREVIEW

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European foreword

This document (EN 13168:2012+A1:2015/prA2:2018) has been prepared by Technical Committee CEN/TC 88 “Thermal insulating materials and products”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

For relationship with EU Regulation, see informative Annex ZA which is an integral part of this document.

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EN 13168:2012+A1:2015/prA2:2018 (E)**1 Modifications to the European foreword**

In the seventh paragraph, please delete ", and supports essential requirements of EU Directive(s)".

Delete the ninth paragraph and replace the tenth and eleventh paragraphs with the following:

"Amendment A2 modifies EN 13168:2012 and its A1 amendment. This amendment introduces or corrects:

- a) Correction of a mistake under 4.2.3 in Table 2
Footnote a – change nominal length $\leq 1\ 250$ mm to nominal thickness ≤ 100 mm
Footnote b – change nominal length $> 1\ 250$ mm to nominal thickness > 100 mm;
- b) Correction of a mistake under 4.3.4 below Table 7;
- c) Delete the sentence "For handling purposes, all products shall have as a minimum level CS(10/Y)20" (is not in line with the table 7 – there are also levels below CS(10/Y)20);
- d) Correction of a mistake under 4.2. General requirements;
- e) Table 5 - Levels for tensile strength perpendicular to faces moved to 4.3 For specific applications. Now table 7;
- f) TR5 under 4.2 General requirements only valid for WW-C;
- g) Introduced the clause "Continuous smouldering";
- h) Modified the clause "Release of Dangerous substance";
- i) Modified the definition for "class F" in the clause "reaction to fire";
- j) Editorial modifications in different parts of the text and linked to the above modification;
- k) Modifications to be in line with the CPR e.g. PTD replaced by TT;
- l) Modified the Annex ZA."

In the fourteenth paragraph, add the following standard to the end of the list of standards:

"EN 16069, *Thermal insulation products for buildings — Factory made products of polyethylene foam (PEF) — Specification*".

2 Modification to the Scope

Replace the first sentence with:

"This European Standard specifies the characteristics for factory made wood wool (WW) products, with or without facings or coatings, which are used for the thermal insulation of buildings."

Replace the third paragraph with:

"This European Standard describes product characteristics and includes procedures for testing, assesment and verification of constancy of performance (AVCP), marking and labelling."

3 Modification to Clause 2, Normative references

Add the following references:

"EN 16516, *Construction products — Assessment of release of dangerous substances — Determination of emissions into indoor air*

EN 16733:2016, *Reaction to fire tests for building products — Determination of a building product's propensity to undergo continuous smouldering*".

4 Modification to Clause 3, Terms, definitions, symbols, units and abbreviated terms

Delete the term and definition for "3.1.6 level" and "3.1.7 class" and modify the numbers of the remaining terms accordingly.

Add the following symbols:

"

S-NoS is the Continuous Smouldering declaration (NoS means no Smouldering and S means Smouldering)

ANP Smouldering assessment not possible

".

Delete the following abbreviated terms:

PTD is Product Type Determination (previously named ITT for Initial Type Test)

VCP is Verification of Constancy of Performance (previously named evaluation of conformity)

Add the following abbreviated term:

"

TT is Type Testing

".

5 Modification to 4.3.4, Compressive stress or compressive strength

Delete the last sentence of the clause.

6 Modification to 4.3.12, Release of dangerous substances

Replace the text in the clause with the following:

"If the release of dangerous substances¹⁾ into indoor air is tested, this shall be done according to EN 16516.

NOTE An informative database covering European and national provisions on dangerous substances is available at the Construction web site on EUROPA accessed through: <http://ec.europa.eu/growth/tools-databases/cp-ds>".

¹ See for reference the LCI list of the European Commission "Agreed EU-LCI values" (http://ec.europa.eu/growth/sectors/construction/eu-lci/values_de).

7 Modification to 4.3.14, Continuous glowing combustion

Replace the current title with "Propensity to undergo continuous smouldering" and replace the text in the clause with the following:

"When declared the propensity to undergo continuous smouldering of the wood wool shall be tested according to EN 16733. The following conditions and parameters shall be considered within the tests:

- a) Homogeneous wood wool products:
- the type of wood, binder and additives;
 - organic content (in percentage per mass), to be determined by tests according to EN 13820;
 - highest density as well as a lowest density (determination of the density shall be in accordance with EN 1602);
 - highest thickness or – greater than 100 mm – highest testable thickness of 100 mm (thickness to be determined according EN 823);
 - The test is intended for naked WW product. Any facings or coatings are removed when preparing the test specimen;
- b) Non-homogeneous products (wood wool composite boards):
- the type of wood, binder and additives;
 - any possible combination of wood wool and other possible insulation products;
 - highest as well as lowest density of the wood wool layer;
 - highest thickness of the wood wool layer;
 - organic content (in percentage per mass), to be determined by tests according to EN 13820;
 - highest as well as lowest density of the second insulation material in case of combination with insulation material which may also show propensity to undergo continuous smouldering (wood fibre, cork);
 - with equal or lower density up to a tested density of 115 kg/m³ in case of combination with mineral wool or if tested density is higher than 115 kg/m³, can be applicable to lower density if additionally tested with a density of 100 kg/m³ ($\pm 15\%$);
 - highest density of the second insulation material in case of combination with any other insulation products which do not show propensity to undergo continuous smouldering;
 - highest thickness of the second insulation material in case of combination with insulation material which may also show propensity to undergo continuous smouldering (wood fibre, cork, mineral wool); or
 - lowest thickness of the second insulation material in case of combination with any other insulation material which do not show propensity to undergo continuous smouldering.

The tests shall be done on specimens taken from 2-layer-composite boards (with one external wood wool layer) which also cover 3-layer composite boards (with two external wood wool layer).

Only the wood wool layer shall be exposed by the ignition source within the tests.

The tests shall be done without consideration of the intended end-use conditions. If the paragraph 6.2.5 of EN 16733:2016 applies, a permanent contact between the pieces shall be assured.

The results of tests considering the aforementioned parameters in fully are also valid for products:

- of the same type of wood, binder and additives,
- with lower organic content of the wood wool layer,
- with all densities of the wood wool between those evaluated,
- with lower densities in case of mineral wool as second insulation layer or in case of insulation material which do not show propensity to undergo continuous smouldering,
- with all densities between those evaluated in case of wood fibre or cork as second insulation layer,
- with lower thickness of the wood wool layer as well as of the second insulation layer and also with higher thickness of the layers when the layer thickness of the tested specimen was of about 100 mm,
- with any facings or coatings or suchlike,
- for any end-use conditions.

If the test according to Clause 11 of EN 16733:2016 has been passed, declare: "the product does not show propensity for continuous smouldering combustion". If the test according to Clause 11 of EN 16733:2016 has been failed, declare: "the product shows propensity for continuous smouldering combustion". If the assessment was not possible according to Clause 11 of EN 16733:2016, declare: "assessment of the propensity for continuous smouldering combustion is not possible".

If a Designation code is given, the following abbreviations shall be used:

- the product does not show propensity for continuous smouldering combustion: NoS
- the product shows propensity for continuous smouldering combustion: S
- the assessment of the propensity for continuous smouldering combustion is not possible: ANP".

8 Modification to Clause 6, Designation code

Replace the first paragraph with:

"If a designation code is provided, it shall be given as following (including relevant characteristics from clause 4.3):".

Add the following item to the list:

"

—	Smouldering combustion	NoS, S or ANP
---	------------------------	---------------

".

EN 13168:2012+A1:2015/prA2:2018 (E)

9 Modification to Clause 7, Assessment and Verification of the Constancy of Performance (AVCP)

Replace the subclauses with the following:

7.1 General

In accordance with EN 13172, the compliance of the factory made mineral bonded wood wool with the requirements of this standard and with the performances declared by the manufacturer in the DoP shall be demonstrated by:

- determination of the product type (Type testing);
- factory production control by the manufacturer, including product assessment.

The manufacturer shall always retain the overall control and shall have the necessary means to take responsibility for the conformity of the product with its declared performance(s).

If a manufacturer decides to group his products, it shall be done in accordance with EN 13172.

7.2 Type Testing (TT)

All performances related to characteristics included in this standard shall be determined when the manufacturer intends to declare the respective performances unless the standard gives provisions for declaring them without performing tests. (e.g. use of previously existing data, CWFT and conventionally accepted performance). Type testing description is given in Annex B.

7.3 Factory Production Control (FPC)

The manufacturer shall establish, document and maintain an FPC system to ensure that the products placed on the market comply with the declared performance of the essential characteristics.

The minimum frequencies of tests in the factory production control (FPC) shall be in accordance with Annex B. When indirect testing is used, the correlation to direct testing shall be established in accordance with EN 13172."

10 Modification to A.1, General

Replace the first paragraph with the following:

"The declared values of thermal resistance and thermal conductivity shall be determined. The conformity of the product to its declared values should be demonstrated. The declared values of thermal resistance and thermal conductivity of a product are the expected values of these properties during an economically reasonable working life under normal conditions, assessed through measured data at reference conditions."

11 Modification to A.2, Input data

Replace the first sentence with the following:

"At least ten test results for thermal resistance and thermal conductivity shall be obtained from internal or external direct measurements in order to calculate the declared values."

12 Modification to Annex B, Product type determination (PTD) and Factory production control (FPC)

Replace the current title of the clause with "Type testing (TT) and factory production control (FPC)".

Replace the Table B.1 with the following:

"Table B.1 — Minimum product testing frequencies

Clause		TT ^a	FPC		
		Minimum number of tests ^b	Minimum testing frequency ^c		
No	Title		Direct testing	Indirect testing	
				Test method	Frequency
4.2.1	Thermal resistance and thermal conductivity	4 + 6 ^d	1 every 3 months for each product/product group and indirect testing	Mass per unit area or density	1 per 4 h
4.2.2	Length and width	4	1 per 2 h	-	-
4.2.3	Thickness	4	1 per 2 h	-	-
4.2.4	Squareness	4	1 per 2 h	-	-
4.2.5	Flatness	4	1 per 4 h	-	-
4.2.6	Chloride content	4	1 per year and indirect	Density of Cl ⁻ -solution	1 per day
4.2.8	Tensile strength perpendicular to faces	4	1 per year and indirect	Manufacturer's method	1 per 8 h
4.2.9	Reaction to fire of the product as placed on the market	1	See Table B.2		
4.3.2.1	Dimensional stability at specified temperature and humidity conditions	1	1 per 5 years	-	-
4.3.2.2	Dimensional stability under specified load and temperature conditions	4	1 per 5 years	-	-
4.3.3	Squareness	4	1 per 2 h	-	-
4.3.4	Compressive stress or compressive strength	4	1 per year and indirect	Mass per unit area or density	1 per 4 h
4.3.5	Apparent density and mass per unit area	4	1 per 2 h	-	-
4.3.6	Point load	4	1 per 5 years	-	-
4.3.7	Bending strength	4	1 per day	-	-
4.3.8	Water vapour transmission	4	1 per 5 years	-	-
4.3.9	Water absorption	4	1 per 5 years	-	-
4.3.10	Compressive creep	1	1 per 5 years	-	-
4.3.11	Sound absorption	4	1 per 5 years	-	-
4.3.12	Release of dangerous substances	EN 16516	1 per 5 years	EN 16516---	1 per week