



NSAI
Standards

Irish Standard
I.S. EN 13170:2012+A1:2015

Thermal insulation products for buildings - Factory made products of expanded cork (ICB) - Specification

I.S. EN 13170:2012+A1:2015

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

EN 13170:2012+A1:2015

Published:

2015-02-18

*This document was published
under the authority of the NSAI
and comes into effect on:*

2015-03-07

ICS number:

91.100.60

NOTE: If blank see CEN/CENELEC cover page

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 13170:2012+A1

February 2015

ICS 91.100.60

Supersedes EN 13170:2012

English Version

**Thermal insulation products for buildings - Factory made
products of expanded cork (ICB) - Specification**

Produits isolants thermiques pour le bâtiment - Produits
manufacturés en liège expansé (ICB) - Spécification

Wärmedämmstoffe für Gebäude - Werkmäßig hergestellte
Produkte aus expandiertem Kork (ICB) - 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

EN 13170:2012+A1:2015 (E)

Contents

Page

Foreword.....	4
1 Scope	6
2 Normative references	6
3 Terms, definitions, symbols, units and abbreviated terms	8
4 Requirements	11
5 Test methods.....	18
6 Designation code	21
7 Assessment and Verification of the Constancy of Performance (AVCP)	22
8 Marking and labelling	22
Annex A (normative) Determination of the declared values of thermal resistance and thermal conductivity	24
Annex B (normative) A_1 Product type determination A_1 (A_1 PTD A_1) and factory production control (FPC)	27
Annex C (normative) Multi layered insulation products (insulation cork board)	31
Annex D (normative) Determination of the thermal conductivity in relation to moisture content	33
Annex E (informative) Examples for the determination of the declared values of thermal resistance and thermal conductivity for a product or a product group.....	35
Annex ZA (informative) A_1 Clauses of this European Standard addressing the provisions of the EU Construction Products Regulation A_1	38
Bibliography	49
Tables	
Table 1 — Classes for length tolerances	12
Table 2 — Classes for width tolerances	12
Table 3 — Classes for thickness tolerances	13
Table 4 — Levels for bending strength	14
Table 5 — Dimensional stability under specified temperature and humidity conditions	14
Table 6 — Levels for compressive stress at 10 % deformation	15
Table 7 — Levels for tensile strength perpendicular to faces	15
Table 8 — Levels for compressibility	17
Table 9 — 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 %.....	26
Table B.1 — Minimum number of tests for "IPTD" and minimum product testing frequencies	27
Table B.2 — Minimum product testing frequencies for the reaction to fire characteristics	29
Table E.1 — λ test results	35
Table E.2 — R test results	36
Table ZA.1 — Relevant clauses for factory made expanded cork and intended use	38

Table ZA.2 — Systems of AVCP	40
Table ZA.3.1 — Assignment of AVCP tasks for factory made expanded cork products under system 1 for reaction to fire and system 3 (see Table ZA.2).....	40
Table ZA.3.2 — Assignment of AVCP tasks for factory made expanded cork products under system 3 (see Table ZA.2).....	42
Table ZA.3.3 — Assignment of AVCP tasks for factory made expanded cork products under combined system 4 for reaction to fire and system 3 (see Table ZA.2)	43
 Figures	
Figure D.1 — Example of a graphic representation of “a”	34
Figure ZA.1 — Example CE marking information of products under AVCP system 1 and system 3"	48

EN 13170:2012+A1:2015 (E)**Foreword**

This document (EN 13170:2012+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 13170:2012 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

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.

Compared with EN 13170:2008, 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 ICB;
- d) addition of links to EN 15715, *Thermal insulation products — Instructions for mounting and fixing for reaction to fire testing — Factory made products*;
- e) changes to Annex ZA.

A1 Amendment 1 modifies EN 13170:2012 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) a new subclause 4.3.13;
- 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 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 reductions 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 organizations 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.

EN 13170:2012+A1:2015 (E)**1 Scope**

This European Standard specifies the requirements for factory made products of expanded cork, which are used for the thermal insulation of buildings. The products are made with granulated cork agglomerated without additional binders and are delivered as boards with or without facings or coatings.

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

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

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 required for a given application are to be found in regulations or non-conflicting standards.

Products with a declared thermal resistance lower than $0,25 \text{ m}^2\cdot\text{K/W}$, or a declared thermal conductivity greater than $0,060 \text{ W/(m}\cdot\text{K)}$, at 10°C , are not covered by this European Standard.

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

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

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-