



NSAI
Standards

Irish Standard
I.S. EN 14315-1:2013

Thermal insulating products for buildings
- In-situ formed sprayed rigid
polyurethane (PUR) and polyisocyanurate
(PIR) foam products - Part 1: Specification
for the rigid foam spray system before
installation

I.S. EN 14315-1:2013

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:

This document is based on:
EN 14315-1:2013

Published:
11 February, 2013

This document was published under the authority of the NSAI and comes into effect on:
11 February, 2013

ICS number:

91.100.60

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

ICS 91.100.60

English Version

Thermal insulating products for buildings - In-situ formed
sprayed rigid polyurethane (PUR) and polyisocyanurate (PIR)
foam products - Part 1: Specification for the rigid foam spray
system before installation

Produits isolants thermiques destinés aux applications du bâtiment - Produits en mousse rigide de polyuréthane (PUR) ou de polyisocyanurate (PIR) projetée, formés en place - Partie 1: Spécifications relatives aux systèmes de projection de mousse rigide avant mise en oeuvre

Wärmedämmstoffe für das Bauwesen - An der Verwendungsstelle hergestellter Wärmedämmstoff aus Polyurethan (PUR) - und Polyisocyanurat (PIR)-Spritzschaum - Teil 1: Spezifikation für das Schaumsystem vor dem Einbau

This European Standard was approved by CEN on 17 November 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.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
Foreword	4
1 Scope	5
2 Normative references	5
3 Terms, definitions, symbols and abbreviations	6
3.1 Terms and definitions	6
3.2 Symbols and abbreviations	8
4 Requirements	9
4.1 General	9
4.2 For all applications	9
4.3 Specific applications	12
5 Test methods	15
5.1 Sampling and test specimen preparation	15
5.2 Conditioning	15
5.3 Testing	16
6 Designation code	18
7 Evaluation of conformity	18
7.1 General	18
7.2 Initial type testing	19
7.3 Factory production control	19
8 Marking, labelling and technical information	19
8.1 Marking and labelling	19
8.2 Technical information	19
Annex A (normative) Determination of declared aged thermal conductivity and aged thermal resistance	21
A.1 Introduction	21
A.2 Input data	21
A.3 Declared values	21
Annex B (normative) Initial type testing (ITT) and Factory production control (FPC)	23
Annex C (normative) Determination of the aged values of thermal resistance and thermal conductivity	25
C.1 General	25
C.2 Sampling and test specimen preparation	25
C.3 Determination of the initial value of thermal conductivity	26
C.4 Determination of the accelerated aged value of thermal conductivity	27
C.5 Fixed increment procedure	29
C.6 Declaration of the aged values of thermal resistance and aged thermal conductivity	31
Annex D (normative) Preparation of the test sample	33
D.1 Principle	33
D.2 Procedure	33
Annex E (normative) Determination of the reaction profile and free-rise density	34
E.1 Introduction	34
E.2 Principle	34
E.3 Apparatus	34
E.4 Procedure	34
E.5 Free-rise density	35
Annex F (normative) Determination of substrate adhesion strength perpendicular to faces	36

F.1	Principle	36
F.2	Apparatus	36
F.3	Sample preparation and conditioning	36
F.4	Preparation of test specimens	36
F.5	Testing procedure	36
F.6	Presentation of results	36
Annex G	(normative) Testing for reaction to fire products	37
G.1	Scope	37
G.2	Product and installation parameters	37
G.3	Mounting and fixing	38
G.4	Field of application	40
Annex H	(normative) Testing for reaction to fire products in standardised assemblies simulating end-use application(s)	42
H.1	Scope	42
H.2	Product and installation parameters	42
H.3	Mounting and fixing	43
H.4	Field of application	47
Annex I	(informative) Example for the determination of the declared aged values of thermal conductivity and thermal resistance for a product	49
Annex J	(normative) Instructions for compiling thermal resistance performance charts	51
J.1	Introduction	51
J.2	General	51
J.3	Procedure for the manufacturer to create the performance charts	53
Annex ZA	(informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Directive	57
Bibliography	64

Foreword

This document (EN 14315-1:2013) 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 July 2013, and conflicting national standards shall be withdrawn at the latest by July 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 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.

This European Standard consists of two parts which form a package. The first part is the harmonised part satisfying the mandate and the CPD and is the basis for the CE marking covering the products, which are placed on the market. The second part, which is the non-harmonised part, covers the specification for the installed products. Both parts need to be used for the application of the insulation products in the end-use applications covered by EN 14315.

This European Standard is one of a series for mineral wool, expanded clay, expanded perlite, exfoliated vermiculite, polyurethane/polyisocyanurate, cellulose, bound expanded polystyrene and expanded polystyrene in-situ formed insulation products used in buildings, but this standard may be used in other areas where appropriate.

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.

EN 14315, *Thermal insulating products for buildings — In-situ formed sprayed rigid polyurethane (PUR) and polyisocyanurate (PIR) foam products*, consists of the following parts:

- *Part 1: Specification for the rigid foam spray system before installation* (the present document)
- *Part 2: Specification for the installed insulation products*

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 requirements for in-situ formed sprayed rigid polyurethane (PUR) and rigid polyisocyanurate (PIR) foam products when applied to walls, ceilings, roofs, suspended ceilings and floors.

This Part 1 of this European Standard is a specification for the rigid foam spray system before installation.

Part 1 of this European Standard describes the product characteristics and includes procedures for testing, marking and labelling and the rules for evaluation of conformity.

This European Standard does not specify the required levels of all properties to be achieved by a product to demonstrate fitness for purpose in a particular end-use application. The required levels are to be found in regulations or non-conflicting standards.

This European Standard does not cover factory made rigid polyurethane (PUR) or polyisocyanurate (PIR) foam insulation products or in-situ products intended to be used for the insulation of building equipment and industrial installations.

NOTE Foam products are either called flexible or rigid. The flexible products are used in upholstery and mattresses and are characterised by their ability to deflect, support and recover to their original thickness continually during their in-use phase. Those that are not flexible are termed rigid and do not possess these flexible characteristics. They are mostly used for thermal insulation purposes and vary widely in their compression strength values. Once the cell structure is crushed in a rigid foam, it does not recover its thickness fully. Some of these rigid foams are very low in density with very low compression strengths and are sometimes described “commercially” as “soft foams” or “semi-rigid” foams. This note has been included to clarify that all foams with such descriptions are covered by this standard’s used of the term rigid foam.

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 312, *Particleboards — Specifications*

EN 508-1, *Roofing products from metal sheet — Specification for self-supporting products of steel, aluminium or stainless steel sheet — Part 1: Steel*

EN 520, *Gypsum plasterboards — Definitions, requirements and test methods*

EN 823, *Thermal insulating products for building applications — Determination of thickness*

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 1607:1996, *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*

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](#)
-