SLOVENSKI STANDARD
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Toplotnoizolacijski proizvodi za stavbe - Razsuti celulozni proizvodi za oblikovanje na mestu vgradnje - 2. del: Specifikacija za vgrajene proizvode

Thermal insulation products for buildings - In-situ formed loose fill cellulose (LFCI) products - Part 2: Specification for the installed products

Wärmedämmstoffe für Gebäude - An der Verwendungsstelle hergestellter Wärmedämmstoff aus Zellulosefüllstoff (LFCI) - Teil 2: Spezifikation für die eingebauten Produkte

Produits isolants thermiques destinés aux applications du bâtiment - Isolation thermique formée en place à base de cellulose (LFCI) - Partie 2: Spécifications des produits mis en oeuvre

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ICS:

91.100.60	Materiali za toplotno in zvočno izolacijo	Thermal and sound insulating materials

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Thermal insulation products for buildings - In-situ formed loose fill cellulose (LFCI) products - Part 2: Specification for the installed products

Produits isolants thermiques destinés aux applications du bâtiment - Isolation thermique formée en place à base de cellulose (LFCI) - Partie 2: Spécifications des produits mis en oeuvre

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If this draft becomes a European Standard, 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.

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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
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Foreword

This document (FprEN 15101-2:2013) 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 Unique Acceptance Procedure.

This European Standard consists of two parts which form a package. The first part, which is the harmonised part, satisfying the mandate and the CPD and is the basis for the CE marking, covers the products which are placed on the market. The second part, which is the non-harmonised part, covers the specification for the installation checks for the installed products.

Part 1 has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports the essential requirements of EU Directives.

Attention is drawn to the need to take into account any complementary member state rules (e.g. installation rules) which together with this European Standard ensures the fitness for purpose of the installed product.

This European Standard contains five Annexes:

Annex A (normative)	Open blow applications (lofts) – Determination of installed insulation thickness – Pin and plate method
Annex B (normative)	Cavity applications – Calculation for determining the declared installed insulation density in a construction
Annex C (normative)	Cavity applications – Determination of average cavity width
Annex D (normative)	Cavity applications – Test box density (method of checking the blown density before installation into the wall)
Annex E (normative)	Installation guidelines

This European Standard is one of a series of standards that include mineral wool, expanded clay, expanded perlite, exfoliated vermiculite, polyurethane/polyisocyanurate, cellulose and bound 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.

1 Scope

This European Standard specifies requirements for in-situ formed loose-fill cellulose insulation (LFCI) products when installed as thermal insulation into walls, floors, galleries, roofs, lofts and ceilings.

This Part 2 is a specification for the installation checks for the installed products.

It specifies the checks and tests to be used for the declarations made by the installer of the product.

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

Products with a declared thermal conductivity at 10 °C (mean temperature) greater than 0,060 W/(m × K) or a declared thermal resistance lower than 0,25 m^2 × K/W are not covered by this European Standard.

This European Standard does not cover factory made cellulose mats, bats or quilts intended to be used for the insulation of buildings or in-situ cellulose products for the insulation of building equipment and industrial installations. Nor does it specify performance requirements.

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.

FprEN 15101-1, *Thermal insulation products for buildings — In-situ formed loose-fill cellulose (LFCI) products — Part 1: Specification for the products before installation*

3 Terms, definitions, symbols and abbreviations

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1.1
open blow applications
all the horizontal applications where the final upper surface of the installed insulation products remains uncovered, for example, galleries, lofts, ceilings and floors

3.1.2
cavity applications
applications where the installed insulation product is created in an enclosed space, for example, frame wall, roof and floor constructions

3.1.3
floor
horizontal division between two storeys, over a crawl space or a floor directly on the ground

3.1.4
settlement
decrease of installed insulation thickness in lofts or height in cavities and frame constructions with vibrations, humidity, cyclic climate conditions and time, expressed as a percentage of the initial installed thickness

3.1.5
coverage
mass of insulation per unit area

3.1.6
performance chart
table giving thickness and coverage requirements for different values of declared thermal resistance

3.1.7
system
particular type of loose-fill cellulose insulation used in conjunction with a blowing machine with a blowing hose and nozzle

3.1.8
blowing hole
hole, cut or formed, in a wall or frame construction, through which the cellulose is blown

3.1.9
declared installed thickness for open blow applications
thickness as installed by the installer, prior to any settlement

3.1.10
loose-fill cellulose insulation (LFCI)
fibre, fibrous or granulated insulation products derived from paper, paper stock and/or wood, leave or stalk strings with or without binders which are blown, injected or applied with or without moisture

3.1.11
frame wall, roof and floor constructions
walls with wood or metal studs, sloping roof with insulation between and above rafters, as well as stud girders and internal and external insulation on solid masonry construction

3.2 Symbols and abbreviations

3.2.1 Symbols used in this standard:

d	is the declared installed insulation thickness	m
R	is the thermal resistance	$m^2 \times K/W$
R_D	is the declared installed thermal resistance	$m^2 \times K/W$
s	is the relative reduction in thickness, due to settlement	%
W_p	is the short-term water absorption	kg/m^2
λ_D	is the declared thermal conductivity	$W/(m \times K)$
K	Is the declared installed insulation density	Kg/m^3
SH	is the declared class for settlement for open blow applications	
SC	Is the declared class of settlement for cavity applications	

3.2.2 Abbreviations used in this standard

LFCI is **L**oose-**F**ill **C**ellulose **I**nsulation.

4 Requirements

4.1 General

The installer shall use an insulation product that conforms to FprEN 15101-1.

The installer shall inspect the building in accordance with manufacturer's technical information and national rules in order to determine whether it is suitable for the application of the product. In the absence of any national rules the inspection shall be in accordance with the information given in Annex E.