



BSI Standards Publication

Thermal insulation products for buildings — In-situ formed loose fill cellulose (LFCI) products

Part 2: Specification for the installed
products

National foreword

This British Standard is the UK implementation of EN 15101-2:2013.

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A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

**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

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

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Foreword

This document (EN 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 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of an identical text or by endorsement, at the latest by March 2014, and conflicting national standards shall be withdrawn at the latest by March 2014.

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 European Standard consists of two parts which form a package. The first part, which is the harmonised part, satisfying the mandate and the Construction Products Directive (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 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.

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 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 m² × 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.

EN 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

EXAMPLE Galleries, lofts, ceilings and floors.

3.1.2

cavity applications

applications where the installed insulation product is created in an enclosed space

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:

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

3.2.2 Abbreviations used in this standard

LFCI Loose-Fill Cellulose Insulation