Ehituslikud soojusisolatsioonitooted. Kasutuskohas valmistatavad puistetselluloosist (LFCI) tooted. Osa 1: Toodete spetsifikatsioon enne paigaldamist

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

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 15101-1:2013 sisaldab Euroopa standardi EN 15101-1:2013 ingliskeelset teksti.	This Estonian standard EVS-EN 15101-1:2013 consists of the English text of the European standard EN 15101-1:2013.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 25.09.2013.	Date of Availability of the European standard is 25.09.2013.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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

Produits isolants thermiques destinés aux applications du bâtiment - Isolation thermique formée en place à base de cellulose (LFCI) - Partie 1 : Spécification des produits en vrac avant la mise en oeuvre

Wärmedämmstoffe für Gebäude - An der Verwendungsstelle hergestellter Wärmedammstoff aus Zellulosefüllstoff (LFCI) - Teil 1: Spezifikation für die Produkte vor dem Einbau

This European Standard was approved by CEN on 8 August 2013.

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

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Foreword

This document (EN 15101-1:2013) 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of an identical text or by endorsement, at the latest by March 2014, and conflicting national standards shall be withdrawn at the latest by March 2014.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 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 installation checks for the installed products.

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.

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 loose-fill cellulose insulation (LFCI) products for the thermal and/or sound insulation of buildings when installed into walls, floors, galleries, roofs and ceilings.

This European Standard is a specification for the loose-fill cellulose insulation (LFCI) products before installation.

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

Products covered by this European Standard may also be used in prefabricated thermal insulation systems and composite panels; the structural performance of systems incorporating these products is not covered.

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

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 local regulations or non-conflicting standards.

This European Standard does not cover factory made cellulose products placed on the market as bats, mats or boards intended to be used for the insulation of buildings or loose-fill cellulose products for the insulation of building equipment and industrial installations.

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

EN 12086:2013, *Thermal insulation products for building applications — Determination of water vapour transmission properties*

EN 12667, *Thermal performance of building materials and products — Determination of thermal resistance by means of guarded hot plate and heat flow meter methods — Products of high and medium thermal resistance*

EN 13172:2012, *Thermal insulating products — Evaluation of conformity*

EN 13238, *Reaction to fire tests for building products — Conditioning procedures and general rules for selection of substrates*

EN 13501-1, *Fire classification of construction products and building elements — Part 1 Classification using data from reaction to fire tests*

EN 13823:2010, *Reaction to fire tests for building products — Building products excluding floorings exposed to the thermal attack by a single burning item*

EN 29053, *Acoustics — Materials for acoustical applications — Determination of airflow resistance (ISO 9053)*

EN ISO 354:2003, *Acoustics — Measurement of sound absorption in a reverberation room (ISO 354:2003)*

EN ISO 10456 *Building materials and products — Hygrothermal properties — Tabulated design values and procedures for determining declared and design thermal values (ISO 10456)*

EN ISO 11654, *Acoustics — Sound absorbers for use in buildings — Rating of sound absorption (ISO 11654)*

EN ISO 11925-2, *Reaction to fire tests — Ignitability of building products subjected to direct impingement of flame — Part 2: Single-flame source test (ISO 11925-2)*

ISO 12491, *Statistical methods for quality control of building materials and components*

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 applications except cavity applications

3.1.2
declared insulation thickness: "open blow" applications
installed insulation thickness minus the thickness loss according to the settlement class of the product

3.1.3
declared insulation thickness: cavity applications
identical with the thickness of the cavity

3.1.4
floor
horizontal division between two storeys, over a crawl space or a floor directly on the ground

3.1.5
frame construction
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

3.1.6
settlement
decrease of installed insulation thickness in lofts or height in cavities and frame constructions either under vibration, humidity, cyclic conditions and time, expressed as a percentage of the initial installed insulation thickness (after compaction if required)

3.1.7
coverage
mass of insulation per unit area

3.1.8
performance chart
table giving thickness and coverage requirements for different values of declared thermal resistance