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Thermal insulation products for buildings - Factory made calcium silicate (CS) products - Specification

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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English Version

Thermal insulation products for buildings - Factory made calcium silicate (CS) products - Specification

Produits isolants thermiques pour le bâtiment -
Produits manufacturés en silicate de calcium (CS) -
Spécifications

Wärmedämmstoffe für Gebäude - Werkmäßig
hergestellte Produkte aus Calciumsilikat (CS) -
Spezifikation

This European Standard was approved by CEN on 28 September 2020.

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.

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

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European foreword

This document (EN 16977:2020) 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of an identical text or by endorsement, at the latest by May 2021 and conflicting national standards shall be withdrawn at the latest by August 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a standardization request given to CEN by the European Commission and the European Free Trade Association.

For relationship with (EU) Regulation 305/2011, see informative Annex ZA, which is an integral part of this document.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

EN 16977:2020 (E)**1 Scope**

This document specifies the characteristics for factory made calcium silicate (CS) products with or without lamination or coating intended to be used for the thermal insulation of buildings.

This document is applicable for materials with the main crystal phases Xonotlite and Tobermorite with or without Wollastonite.

This document is applicable for products which are manufactured in the form of boards, segments and prefabricated ware.

This document is applicable for multi-layered CS products.

The products covered by this documents can be used in roofs, walls, ceilings and floors.

This document specifies procedures for assessment and verification of constancy of performance (AVCP) of characteristics of factory made calcium silicate products (CS).

This document does not cover:

- products intended to be used for the insulation of building equipment and industrial installations;
- products intended to be used for civil engineering works;
- with a declared thermal conductivity greater than 0,078 W/(mK) at 10 °C;
- aerated concrete, autoclaved aerated concrete, mineral foam insulating products and sand-lime bricks;
- in situ insulation products.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 822:2013, *Thermal insulating products for building applications - Determination of length and width*

EN 823:2013, *Thermal insulating products for building applications - Determination of thickness*

EN 824:2013, *Thermal insulating products for building applications - Determination of squareness*

EN 825:2013, *Thermal insulating products for building applications - Determination of flatness*

EN 826:2013, *Thermal insulating products for building applications - Determination of compression behaviour*

EN 1604:2013, *Thermal insulating products for building applications - Determination of dimensional stability under specified temperature and humidity conditions*

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

EN 12667:2001, *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 12939:2000, *Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods - Thick products of high and medium thermal resistance*

EN 13468:2001, *Thermal insulating products for building equipment and industrial installations - Determination of trace quantities of water soluble chloride, fluoride, silicate, sodium ions and pH*

EN 13501-1:2018, *Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests*

EN 13820:2003, *Thermal insulating materials for building applications - Determination of organic content*

EN 13823:2020, *Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item*

EN 15715:2009, *Thermal insulation products - Instructions for mounting and fixing for reaction to fire testing - Factory made products*

EN 16516:2017+A1:2020, *Construction products: Assessment of release of dangerous substances - Determination of emissions into indoor air*

EN ISO 1182:2020, *Reaction to fire tests for products - Non-combustibility test (ISO 1182:2020)*

EN ISO 1716:2018, *Reaction to fire tests for products - Determination of the gross heat of combustion (calorific value) (ISO 1716:2018)*

EN ISO 9229:2020, *Thermal insulation - Vocabulary (ISO 9229:2020)*

EN ISO 10456:2007, *Building materials and products - Hygrothermal properties - Tabulated design values and procedures for determining declared and design thermal values (ISO 10456:2007)*

EN ISO 11925-2:2020, *Reaction to fire tests - Ignitability of products subjected to direct impingement of flame - Part 2: Single-flame source test (ISO 11925-2:2020)*

EN ISO 15148:2002/A1:2016, *Hygrothermal performance of building materials and products - Determination of water absorption coefficient by partial immersion - Amendment 1 (ISO 15148:2002/Amd 1:2016)*

ISO 16269-6:2014, *Statistical interpretation of data - Part 6: Determination of statistical tolerance intervals*

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