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Specification for masonry units - Part 2: Calcium silicate masonry units





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NATIONAL FOREWORD

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Specification for masonry units - Part 2: Calcium silicate masonry units

Spécifications pour éléments de maçonnerie - Partie 2: Eléments de maçonnerie en silico-calcaire Festlegungen für Mauersteine - Teil 2: Kalksandsteine

This European Standard was approved by CEN on 10 March 2011.

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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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Foreword

This document (EN 771-2:2011) has been prepared by Technical Committee CEN/TC 125 "Masonry", the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by November 2011, and conflicting national standards shall be withdrawn at the latest by November 2011.

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 supersedes EN 771-2:2003.

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 the EU Construction Products Directive (89/106/EEC).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

This European Standard also takes into account the general rules for reinforced and unreinforced masonry in Eurocode 6.

EN 771, Specification for masonry units consists of:

- Part 1: Clay masonry units
- Part 2: Calcium silicate masonry units
- Part 3: Aggregate concrete masonry units (Dense and light-weight aggregates)
- Part 4: Autoclaved aerated concrete masonry units
- Part 5: Manufactured stone masonry units
- Part 6: Natural stone masonry units

According to the CEN/CENELEC Internal Regulations, the national standards organizations 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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.



1 Scope

This European Standard specifies the characteristics and performance requirements of calcium silicate masonry units for which the main intended uses are inner walls, outer walls, cellars, foundations and external chimney masonry.

This European Standard is intended to apply to all calcium silicate masonry units, including those of an overall nonrectangular parallelepiped shape, specially shaped and accessory units.

It defines the performance related to e.g. strength, density and dimensional accuracy, measured according to the corresponding test methods contained in separate European Standards.

It provides for the evaluation of conformity of the product to this European Standard. The marking requirement for products covered by this document is also included.

This European Standard does not specify standard sizes for calcium silicate masonry units, nor standard work dimensions and angles of specially shaped and accessory units.

It does not cover units with more than 60 % volume of voids, nor products made from shale as a major raw material.

It does not cover storey height panels.

It does not cover units intended for use as a damp proof course, nor units with an incorporated thermal insulation material bonded to the faces of the unit susceptible to be exposed to fire, nor chimney flue units.

2 Normative references

The following referenced documents are indispensable for the application 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 772-1, Methods of test for masonry units — Part 1: Determination of compressive strength

EN 772-2, Methods of test for masonry units — Part 2: Determination of percentage area of voids in aggregate concrete masonry units (by paper indentation)

EN 772-9, Methods of test for masonry units — Part 9: Determination of volume and percentage of voids and net volume of clay and calcium silicate masonry units by sand filling

EN 772-13, Methods of test for masonry units — Part 13: Determination of net and gross dry density of masonry units (except for natural stone)

EN 772-16:2011, Methods of test for masonry units — Part 16: Determination of dimensions

EN 772-18:2011, Methods of test for masonry units — Part 18: Determination of freeze-thaw resistance of calcium silicate masonry units

EN 772-20, Methods of test for masonry units — Part 20: Determination of flatness of faces of aggregate concrete, manufactured stone and natural stone masonry units

EN 772-21, Methods of test for masonry units - Part 21: Determination of water absorption of clay and calcium silicate masonry units by cold water absorption

EN 1052-3, Methods of test for masonry — Part 3: Determination of initial shear strength

EN 1745, Masonry and masonry products — Methods for determining thermal properties

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

EN ISO 12572, Hygrothermal performance of building materials and products — Determination of water vapour transmission properties (ISO 12572:2001)

3 Terms and definitions

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

3.1

masonry unit

preformed component intended for use in masonry construction

3 2

calcium silicate masonry unit

masonry unit made predominantly from lime and siliceous materials, hardened by high pressure steam

3.3

shale

fine grained sedimentary rock, finely laminated and consisting of mainly quartz and clay minerals

3.4

co-ordinating size

size of the co-ordinating space allocated to a masonry unit including allowances for joints and tolerances

3.5

work size

size of a masonry unit specified for its manufacture, to which the actual size conforms within permissible deviations

3.6

actual size

size of a masonry unit as measured

3.7

regular shaped masonry unit

masonry unit with an overall rectangular parallelepiped shape

3.8

specially shaped masonry unit

masonry unit which is not a rectangular parallelepiped

3.9

accessory unit

masonry unit which is shaped to provide a particular function, e.g. to complete the geometry of the masonry

NOTE It may be obtained by cutting a large unit.

3.10

interlocking feature

shaped matched projections and indentations on masonry units

EXAMPLE Tongue and groove systems.

3.11

hole

formed void which may or may not pass completely through a masonry unit