



SLOVENSKI STANDARD
SIST EN 771-2:2011/kFprA1:2014
01-oktober-2014

Specifikacija za zidake - 2. del: Apneno peščeni zidaki

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

Festlegungen für Mauersteine - Teil 2: Kalksandsteine

Spécifications pour éléments de maçonnerie - Partie 2: Eléments de maçonnerie en silico-calcaire

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Ta slovenski standard je istoveten z: EN 771-2:2011/FprA1

<https://standards.iteh.ai/catalog/standards/sist/d96aa303-6b37-4f71-9bdc-8203e957233b/sist-en-771-2-2011-kfpra1-2014>

ICS:

91.100.15 Mineralni materiali in izdelki Mineral materials and products

SIST EN 771-2:2011/kFprA1:2014 en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

FINAL DRAFT
EN 771-2:2011

FprA1

July 2014

ICS 91.100.25

English Version

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

Spécifications pour éléments de maçonnerie - Partie 2:
Éléments de maçonnerie en silico-calcaire

Festlegungen für Mauersteine - Teil 2: Kalksandsteine

This draft amendment is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 125.

This draft amendment A1, if approved, will modify the European Standard EN 771-2:2011. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment was established by CEN 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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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
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 771-2:2011/FprA1:2014) has been prepared by Technical Committee CEN/TC 125 "Masonry", the secretariat of which is held by BSI.

This document is currently submitted to the Unique Acceptance Procedure.

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.

NOTE Due to fact that the Framework Partnership Agreement between the Commission and CEN & CENELEC is not signed yet, there are currently no New Approach Consultants in place for 2014. Therefore the provisions of CEN-CENELEC Guide 15 cannot be met.

This shall not prevent the processing of draft standards nor the offering of harmonized standards to the Commission. In particular, draft standards can be sent to vote without Consultant assessment.

This note will be removed from the Foreword of the finalized publication.

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EN 771-2:2011/FprA1:2014 (E)**1 Modification to the Foreword**

In the 5th paragraph, replace “the essential requirements of the EU Construction Products Directive (89/106/EEC).” with “basic requirements for construction works of the EU Construction Products Regulation (Regulation (EU) No 305/2011).”.

Replace the 6th paragraph with the following:

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

2 Modification to the Scope

In the 4th paragraph, replace “evaluation of conformity” with “assessment and verification of constancy of performance (AVCP)”.

3 Modifications to Clause 3, Terms and definitions

Add new clauses:

“3.28**protected masonry**

masonry (walls, columns or partitions) which is protected against water penetration and is not in contact with soil and ground water

Note 1 to entry: It can either be masonry in external walls which is protected, (e.g. by a layer of suitable render or by cladding), or it can be the inner leaf of a cavity wall or it can be an internal wall. It may or may not be loadbearing.

3.29**unprotected masonry**

masonry (walls, columns or partitions) which may be exposed to rain, freeze/thaw and/or may be in contact with soil and ground water without a suitable protection

Note 1 to entry: It can either be masonry in external walls which is fully unprotected, or which is intended to be provided by a limited protection (e.g. by a thin layer of render). It may or may not be loadbearing”.

4 Modification to 5.1, General

In the 3rd paragraph, replace “to initial type testing” with “to product type determination”.

5 Modification to 5.2.2.1, Tolerances

Replace the text in the last column of Table 1 with the following:

“a deviation in mm declared by the manufacturer (may be closer or wider than the other categories)”.

6 Modification to 5.5, Compressive strength

In the NOTE, delete “for the purpose of CE marking”.

7 Modification to 5.7, Durability

Replace the 1st paragraph with the following:

“For calcium silicate masonry units intended to be used where there is a risk of freezing and thawing while in a wet condition, the manufacturer shall declare the freeze/thaw resistance category according to Table 2.”.

8 Addition of a new subclause 5.13

Add a new clause:

“5.13 Dangerous substances

National regulations on dangerous substances may require verification and declaration on release, and sometimes content, when construction products covered by this standard are placed on those markets.

In the absence of European harmonized test methods, verification and declaration on release/content should be done taking into account national provisions in the place of use.

NOTE An informative database covering European and national provisions on dangerous substances is available at the Construction web site on EUROPA accessed through: <http://ec.europa.eu/enterprise/construction/cpd-ds/>."

9 Modification to Clause 6, Description, designation and classification of calcium silicate masonry units

Replace the heading with the following:

“Description, designation, designation code and classification of calcium silicate masonry units”.

10 Addition of a new subclause 6.2

Add a new subclause 6.2 and update numbering:

“6.2 Designation codes (standards.iteh.ai)

A designation code may be used as part of the designation as shown in Table 3.

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Table 3 — Definition of the designation code

Clause in the standard	Characteristic	Position in the designation code	Unit	Code
	unit type	1	—	CS
	intended use	2	—	P or U P: intended to be used for protected masonry U: intended to be used for unprotected masonry
3.22 Category I masonry units 3.22 Category II masonry units	category	3	—	I or II
5.5 Compressive strength	mean compressive strength ¹⁾	4	N/mm ²	**,*/**, * or **, *p**, *
	type of specimen (/ = whole unit or p = cut prism)		—	

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	normalised compressive strength ¹⁾		N/mm ²	
5.4.1 Gross dry density	min. and max. gross dry density (given as range)	5	kg/m ³	xxxx – yyyy
5.2.1 Dimensions	l × w × t	6	mm	lll × www × ttt
5.2.2 Dimensional tolerances	dimensional tolerance category	no fixed position	–	T1, T2 or T3 ²⁾
5.3 Configuration	illustration or group ³⁾	no fixed position	–	G1, G1S or G2
5.7 Durability	freeze/thaw category	no fixed position	–	F1 or F2
5.9 Reaction to fire	class	no fixed position	–	A1
5.12 Bond strength	initial shear strength for general purpose (GPM) and/or thin layer mortar (TLM)	no fixed position	N/mm ² or “-“	B**,*/- (GPM only), B-/**, * (TLM only) or B**,*/**, * (both)
5.10 Water absorption	W _s	no fixed position	%	W**
5.8 Water vapour permeability	water vapour diffusion coefficient	no fixed position	–	V*/**
5.6 Thermal properties	thermal conductivity $\lambda_{10,dry,unit}$	no fixed position	W/mK	Lx,xx

1) by default the direction of load is perpendicular to bed faces, for other directions the designation code is not applicable
2) designation code is not applicable in case of category Tm
3) by reference to EN 1996-1-1 resp. EN 1996-1-2

The characteristics shall be given in the given order (fixed positions) except for those characteristics with no fixed position. “NPD” is expressed by omitting the respective characteristic.

NOTE 1 NPD means ‘No Performance Determined’. For the use of NPD option see annex ZA.

NOTE 2 A designation code for a calcium silicate masonry unit (CS) where the following characteristics are declared:

Intended use:	P
Category	I
Mean compressive strength	25,0 N/mm ²
Type of specimen	cut prism
Normalised compressive strength	20,0 N/mm ²
Gross dry density range	2 010 kg/m ³ – 2 200 kg/m ³
Dimensions (length × width × height)	998 mm × 175 mm × 623 mm
Dimensional tolerance category	T3
Unit Group	G1
Reaction to fire	A1
Bond strength (initial shear strength)	GPM: 0,15 N/mm ² TLM: 0,35 N/mm ²

will be the following one

CS P I 25,0p20,0 2010-2200 998x175x623 T3 G1 A1 B0,15/0,35".

11 Modification to Clause 8, Evaluation of conformity

Replace the title with the following:

“Assessment and verification of constancy of performance (AVCP)”.

12 Modification to 8.1, General

In the 1st paragraph, replace “values” with “performance”.

In the 1st indent, replace “initial type testing of the product” with “product type determination”.

Replace the 2nd paragraph with the following:

“Alternative methods of test to the reference methods specified in this European Standard may be adopted except for the product type determination tests and in case of dispute, provided that these alternative methods satisfy the following:”.

13 Modification to 8.2, Initial type tests

Replace 8.2 with the following:

“8.2 Product type determination

After completion of the development of a new product type and before placing on the market, appropriate product type determination shall be carried out to confirm that the properties predicted from the development meet the requirements of this standard and the performance of the characteristics to be declared for the product.

Whenever a major change in the source, blend, or nature of raw materials occurs, or when there is a change in processing conditions, leading to what the manufacturer considers will constitute a new product type being produced, the appropriate product type determination shall be repeated.

The manufacturer may define product groups. The product group may differ according to the characteristics in question.

In the product type determination process a manufacturer may take in consideration already existing results.

A manufacturer may use the product type determination results determined by someone else (e.g. another manufacturer or a Research, Technology & Development service provider) to justify his own declaration of performance regarding a product that is manufactured according to the same design and with raw materials, constituents and manufacturing methods of the same kind, provided that permission is given by the owner of the results, and the results are valid for both products.

The tests to be conducted shall be the tests or calculations as described in Table A.1 for the properties selected from the following list relevant to the manufacturer's declaration for the product type's intended use:

- dimensions and dimensional tolerances;
- configuration;
- gross dry density;
- net dry density;
- compressive strength;

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- thermal properties;
- durability;
- water vapour permeability;
- water absorption;
- bond strength

Sampling for product type determination shall be in accordance with Annex A.

The results of type tests shall be recorded.

NOTE For the performance characteristics to be determined in order to address the Declaration of Performance and CE marking provisions, see Table ZA.1.1 and Table ZA.1.2.”.

14 Modification to 8.3.1, General

In the 1st paragraph, replace “values” with “performance of the characteristics”.

15 Modification to 8.3.10, Nonconforming products

Replace the 1st paragraph with:

“The procedure for dealing with nonconforming products shall be documented. Products that do not conform with the requirements or the performances of the product type shall be segregated and marked accordingly. However, these products may be reassessed by the manufacturer and assigned to a different product type.”.

16 Modification to Annex A

Replace the title with the following:

[SIST EN 771-2:2011/kFprA1:2014
https://standards.iteh.ai/catalog/standards/sist/d96aa303-6b37-4f71-9bdc-8203e957233b/sist-en-771-2-2011-kfpra1-2014](https://standards.iteh.ai/catalog/standards/sist/d96aa303-6b37-4f71-9bdc-8203e957233b/sist-en-771-2-2011-kfpra1-2014)

“Sampling for product type determination tests and for independent testing of consignments”.

17 Modification to A.1

Replace A.1 with the following:

“A.1 General

This sampling procedure shall apply for product type determination tests and in the event that there is a requirement for an assessment of product compliance.

Only those characteristics declared by the manufacturer shall be assessed by this procedure.

The number of calcium silicate masonry units required to determine compliance with the specification shall be sampled from a consignment no greater than 20 m³ (see Table A.1).”.

18 Modification to A.2.5

Replace the existing A.2.5 with the following:

“A.2.5 Number of masonry units required for testing

The sample size for each test shall be in accordance with Table A.1.

Table A.1 — Number of units required for tests

Property	Clause No.	Test method	Remarks		
			Number of units required for sample. If Annex B is applicable, the number of units in brackets is to be used.		
Dimensions	5.2	EN 772-16	6		
Configuration	5.3	EN 772-2, EN 772-9, EN 772-16	For accessory units no minimum requirement		
Flatness of bed faces	5.2.2.2	EN 772-20	3		
Plane parallelism of bed faces	5.2.2.3	EN 772-16	3		
Dry density	5.4	EN 772-9 EN 772-13	6 (3)		
Compressive strength	5.5	EN 772-1	6 (3)	10 (5)	If the coefficient of variation is known to be greater than 15 %, the number of units shall be 10.
Thermal properties	5.6	EN 1745	3		–
Durability against freeze/thaw	5.7	EN 772-18	12 (6)		Only half of the sample will be tested. The other half of the sample is for eventual testing of loss of compressive strength (see EN 772-18)
Water absorption	5.10	EN 772-21	6 (3)		–
Moisture movement	5.11	National provision in place of use of unit	–		–
Bond strength	5.12	EN 1052-3	Type I specimen	Type II specimen	–
		Procedure A	27	18	
		Procedure B	18	12	
Dangerous substances	5.13	National provision in place of use of unit	National provisions		–
NOTE Additional units should be taken to allow for any damage that may occur in transit to the testing laboratory. If appropriate, e.g. when the units are not affected by a test procedure, the same units may be used for different tests.					

19 Modification to Annex ZA

Replace Annex ZA with the following new annex:

“