

## SLOVENSKI STANDARD SIST EN 771-2:2004/A1:2005 01-april-2005

GdYWJZJ\_UWJ^Y`nU`n]XU\_Y`!`&"XY`.`5 dbYbc`dYý Yb]`n]XU\_]

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

Festlegungen für Mauersteine - Teil 2: Kalksandsteine

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

silico-calcaire iTeh STANDARD PREVIEW

(standards.iteh.ai)

Ta slovenski standard je istoveten z: EN 771-2:2003/A1:2005

SIST EN 771-2:2004/A1:2005

https://standards.iteh.ai/catalog/standards/sist/45f3556b-d279-4647-a6cb a5ef9919c7b1/sist-en-771-2-2004-a1-2005

ICS:

91.100.15

SIST EN 771-2:2004/A1:2005 en

# iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN 771-2:2004/A1:2005</u> https://standards.iteh.ai/catalog/standards/sist/45f3556b-d279-4647-a6cb-a5ef9919c7b1/sist-en-771-2-2004-a1-2005

## **EUROPEAN STANDARD** NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

February 2005

EN 771-2:2003/A1

ICS 91.100.30

#### English version

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

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

Festlegungen für Mauersteine - Teil 2: Kalksandsteine

This amendment A1 modifies the European Standard EN 771-2:2003; it was approved by CEN on 29 December 2004.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This amendment 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom. 103-112-112-112-112-112-11

> SIST EN 771-2:2004/A1:2005 https://standards.iteh.ai/catalog/standards/sist/45f3556b-d279-4647-a6cba5ef9919c7b1/sist-en-771-2-2004-a1-2005



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

### **Contents**

		Page
Fore	word	3
1	Modification in Normative references	4
2	Modification in 3.14 frog	4
3	New 3.24 combined thickness of webs and shells	4
4	Modification in 5.2.1 Dimensions and tolerances	4
5	Modification in 5.2.2 Tolerances	4
6	Modification in Table 1 — Dimensional tolerances for calcium silicate masonry units (in millimetres)	
7	New 5.2.2.2 Flatness of bed faces	5
8	New 5.2.2.3 Plane parallelism of bed faces	5
9	Modification in 5.3 Configuration	6
10	Modification in 5.4.1 Gross dry density	6
11	Modification in 5.4.2 Net dry density	6
12	Modification in 5.4.2 Net dry density	7
13	Modification in 5.7 Durabilitysist.en.771-2:2004/A1:2005	7
14	Modification in 5.12 2 Declaration based on fixed values 3556b-d279-4647-a6cb-	7
15	a5ef9919c7b1/sist-en-771-2-2004-a1-2005  Modification in 6.1 Description and designation	7
16	Modification in 8.2 Initial type tests	7
17	Modification in Table A.1 — Number of units required for tests	8
18	Modification in Table ZA.1 — Scope and relevant clauses	
19	Modification in Figure ZA.1 — Examples of CE Marking information	8
20	Deletion of Bibliography	

#### **Foreword**

This document (EN 771-2:2003/A1:2005) has been prepared by Technical Committee CEN/TC 125 "*Masonry*", the Secretariat of which is held by BSI.

This Amendment to the European Standard EN 771-2:2003 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2005, and conflicting national standards shall be withdrawn at the latest by August 2005.

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 modifications to informative Annex ZA, which is an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN 771-2:2004/A1:2005 https://standards.iteh.ai/catalog/standards/sist/45f3556b-d279-4647-a6cb-a5ef9919c7b1/sist-en-771-2-2004-a1-2005

#### 1 Modification in Normative references

Make the references to ENs 772-1, -13, and -16 undated by deleting the date "2000" in all cases.

Add the following references:

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

EN 772-20, Methods of test for masonry units — Part 20: Determination of flatness of faces of masonry units

EN 1996-1-1, Eurocode 6: Design of masonry structures — Part 1-1: Common rules for reinforced and unreinforced masonry structures

EN 1996-1-2, Eurocode 6: Design of masonry structures — Part 1-2: General rules — Structural fire design"

Amend the title of reference EN 772-9 by deleting "calcium silicate" and substituting "clay and calcium silicate."

#### 2 Modification in 3.14 frog

Delete "both faces" and insert "both bed faces".

(standards.iteh.ai)

## 3 New 3.24 combined thickness of webs and shells

Add the following new definition: https://standards.iteh.ai/catalog/standards/sist/45f3556b-d279-4647-a6cb-a5ef9919c7b1/sist-en-771-2-2004-a1-2005

#### "3.24

#### combined thickness of webs and shells

sum of the thicknesses of the shells and webs from one face or header of a masonry unit to the opposite face or header respectively along whichever path, via the formed voids, gives the smallest value, expressed as a percentage of the unit width or length respectively

#### 4 Modification in 5.2.1 Dimensions and tolerances

In the penultimate paragraph, end of 1<sup>st</sup> sentence, delete "5.2.2" and substitute "5.2.2.1".

#### 5 Modification in 5.2.2 Tolerances

Modify subclause title and insert new subclause heading and replace the first sentence of subclause immediately below as follows:

#### "5.2.2 Dimensional tolerances

#### 5.2.2.1 Tolerances

The dimensional tolerance category shall be declared in accordance with Table 1. The actual deviations for the mean length, width and height and the actual deviations for individual length, width and height shall be not greater than the permissible deviations as specified in Table 1 for the declared dimensional tolerance category."

## 6 Modification in Table 1 — Dimensional tolerances for calcium silicate masonry units (in millimetres)

Delete Table 1 and substitute the following:

Table 1 — Dimensional tolerance categories and tolerances for calcium silicate masonry units (in millimetres)

Dimensions	Calcium silicate masonry units for use with joints made of:				
	general purpose mortar or lightweight-mortar	thin layer mortar			
	GPLM	TLM	TLMP		
Mean height of sample	work size height ± 2	work size height ± 1			
Mean length of sample	work size length ± 2	work size length ± 2	work size length ± 2		
Mean width of sample	work size width ± 2	work size width ± 2	work size width ± 2		
Individual height	mean height of sample ± 2 (standards	•	work size height ± 1,0		
Individual length		mean length of sample $\pm 2$ 04/A1:2005	work size length ± 3		
Individual width https:	smean width of sample ±2 s	/mean width of/sample ± 2- 1-2-2004-a1-2005	work size width ± 3		
NOTE For definition of mortar types see EN 998-2.					

#### 7 New 5.2.2.2 Flatness of bed faces

Add the following new subclause:

#### "5.2.2.2 Flatness of bed faces

When calcium silicate masonry units are declared as tolerance category TLMP for use with thin layer mortar, the manufacturer shall declare the maximum deviation from flatness of the bed faces.

When calcium silicate masonry units are sampled from a consignment in accordance with Annex A and tested in accordance with EN 772-20, the deviation from flatness of the bed faces shall not exceed the declared value."

#### 8 New 5.2.2.3 Plane parallelism of bed faces

Add the following new subclause:

#### "5.2.2.3 Plane parallelism of bed faces

When calcium silicate masonry units are declared as tolerance category TLMP for use with thin layer mortar, the manufacturer shall declare the maximum deviation from plane parallelism of the bed faces.

#### EN 771-2:2003/A1:2005 (E)

When calcium silicate masonry units are sampled from a consignment in accordance with Annex A and tested in accordance with EN 772-16 by procedure **d**), the deviation from plane parallelism shall not exceed the declared value."

#### 9 Modification in 5.3 Configuration

Delete text of subclause and substitute the following:

- "When relevant to the uses, for which calcium silicate masonry units are put on the market, the configuration shall be declared. The declaration may be made by reference to one or another of the groups defined in EN 1996-1-1 or EN 1996-1-2 and/or it may include one or more items such as those in the following list, as relevant:
  - shape and features, including the direction of perforations (by means of a drawing or illustration, when relevant);
  - volume of all formed voids as a percentage of the length x width x height of the unit;
  - volume of the largest of any formed voids as a percentage of the length x width x height of the unit;
  - volume of grip holes as a percentage of the length x width x height of the unit;
  - thickness of webs;
  - thickness of shells:

iTeh STANDARD PREVIEW

combined thickness of webs and shells from face to face;

- GIGT EN 771 22004/A1200
- combined thickness of webs and shells from header to header, https://standards.iteh.al/catalog/standards/sist/45i3556b-d279-4647-a6
- area of voids on a bed face as a percentage of the length x width of the unit.

The total volume of frogs shall not exceed 20 % of the overall volume of the unit, i.e. length  $\times$  width  $\times$  height.

Each declared value shall be stated as either an upper limit or a lower limit or as a range of values. When calcium silicate masonry units are sampled from a consignment in accordance with Annex A and tested in accordance with EN 772-16, EN 772-9 and EN 772-2, the mean value derived from measurements of the test sample shall be within the range or limit declared."

#### 10 Modification in 5.4.1 Gross dry density

Add new final paragraph:

"Individual values of the sample shall not be out of the declared range of the declared values or the corresponding range of the declared density class by more than 100 kg/m³ for units with a declared gross dry density greater than 900 kg/m³ or by more than 50 kg/m³ for units with a declared gross dry density less than or equal to 900 kg/m³."

#### 11 Modification in 5.4.2 Net dry density

Add new final paragraph:

"In addition, the manufacturer may declare the minimum and maximum individual values of net dry density."

#### 12 Modification in 5.5 Compressive strength

Delete 3<sup>rd</sup> paragraph and substitute:

"The declaration shall relate to and indicate the orientation(s) of the calcium silicate masonry units and the type of specimen (whole unit or cut prism) as tested, the method(s) of bedding the calcium silicate masonry units and whether voids present are intended to be fully filled with mortar. The declared value shall be not less than 5 N/mm<sup>2</sup>."

#### 13 Modification in 5.7 Durability

Delete 3<sup>rd</sup> paragraph and substitute:

"When freeze/thaw resistance is declared for structural and for visual aspects there shall be no significant damage of one of the categories in Clause 7 of EN 772-18:2000. Also when freeze/thaw resistance is declared for structural aspects, the reduction in compressive strength, as defined in Clause 8 of EN 772-18:2000, shall be no more than 20 %."

#### 14 Modification in 5.12.2 Declaration based on fixed values

Delete "5.12.2" and substitute "5.12.3".

15 Modification in 6.1 Description and designation

In list item b) delete "5.2" and substitute "5.2.1".

standards.iteh.ai)

Delete existing c) and substitute:

"c) dimensional tolerance category (see 5.2.2);" 71-2:2004/A1:2005

Re-label "d)" as "f)", "e)" as "d)" and river as "e) as "d)" and river as "e) as "d)" and river as "e) as "e) as "e) as "d) as "e) as "

#### 16 Modification in 8.2 Initial type tests

At the end of the note delete "Table" and substitute "Table ZA.1."

In the first line of the next paragraph delete "A.I" and substitute "A.1".

In the first bullet point insert "dimensional" before "tolerances".

Insert a new second bullet point as follows:

"— Configuration;"