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Specifikacija za zidake - 1. del: Opečni zidaki

Specification for masonry units - Part 1: Clay masonry units

Festlegungen für Mauersteine - Teil 1: Mauerziegel

Spécification pour éléments de maçonnerie - Partie 1 : Briques de terre cuite

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Spécification pour éléments de maçonnerie - Partie 1 :
Briques de terre cuite

Festlegungen für Mauersteine - Teil 1: Mauerziegel

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FprEN 771-1:2010 (E)**Foreword**

This document (FprEN 771-1:2010) 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 will supersede EN 771-1:2003.

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 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.

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

Annex A of this document is normative, Annexes B, C and ZA are informative.

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*

1 Scope

This European Standard specifies the characteristics and performance requirements for masonry units manufactured from clay for use in masonry construction (e.g. facing and rendered masonry, loadbearing or non-loadbearing masonry structures, including internal linings and partitions, for building and civil engineering).

This European Standard is intended to apply to two groups of fired-clay masonry units:

a) LD units (see 3.4 and 5.2) comprising:

- 1) clay masonry units with a gross dry density of less than or equal to $1\,000\text{ kg/m}^3$ for use in protected masonry.

b) HD units (see 3.5 and 5.3) comprising:

- 1) all clay masonry units for use in unprotected masonry;
- 2) clay masonry units with a gross dry density of greater than $1\,000\text{ kg/m}^3$ for use in protected masonry.

This European Standard includes those clay masonry units of an overall non-rectangular parallelepiped shape.

It defines the performance related to e.g. dimensional tolerances, strength, density 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 European Standard is included.

This European Standard does not specify standard sizes for clay masonry units, nor does it specify standard work dimensions, angles and radii of specially shaped clay masonry units. This document does not include method of measurement, tolerance and range requirements for dimensions, angles and radii characteristics of specially shaped clay masonry units.

This European Standard does not cover requirements for the following: units for paving, flue liners and storey height clay masonry units and clay masonry units with an incorporated thermal insulation material bonded to the faces of the unit susceptible to be exposed to fire. It does, however, include clay masonry units for external chimney masonry.

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 772-3, *Methods of test for masonry units — Part 3: Determination of net volume and percentage of voids of clay masonry units by hydrostatic weighing*

EN 772-5, *Methods of test for masonry units — Part 5: Determination of the active soluble salts content of clay masonry units*

EN 772-7, *Methods of test for masonry units — Part 7: Determination of water absorption of clay masonry damp proof course units by boiling in water*

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

EN 772-11, *Methods of test for masonry units — Part 11: Determination of water absorption of aggregate concrete, autoclaved aerated concrete, manufactured stone and natural stone masonry units due to capillary action and the initial rate of water absorption of clay masonry units*

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, *Methods of test for masonry units — Part 16: Determination of dimensions*

EN 772-19, *Methods of test for masonry units — Part 19: Determination of moisture expansion of large horizontally perforated clay 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*

FprEN 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*

prEN 1745:2010, *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.

NOTE Annex B to this European Standard is informative and gives descriptions of such matters as applications, exposure and durability.

3.1**masonry unit**

prefabricated component intended for use in masonry construction

3.2**clay masonry unit**

masonry unit made from clay or other argillaceous materials with or without sand, fuel or other additives fired at a sufficiently high temperature to achieve a ceramic bond

3.3**protected masonry**

masonry which is protected against water penetration

NOTE 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

3.4**LD unit**

clay masonry unit with a low gross dry density for use in protected masonry