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Specification for masonry units - Part 6: Natural stone masonry units

Festlegungen für Mauersteine - Teil 6: Natursteine

Spécifications pour éléments de maçonnerie - Partie 6 : Eléments de maçonnerie en pierre naturelle

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Specification for masonry units - Part 6: Natural stone masonry units

Spécifications pour éléments de maçonnerie - Partie 6 :
Éléments de maçonnerie en pierre naturelle

Festlegungen für Mauersteine - Teil 6: Natursteine

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Foreword

This document (FprEN 771-6:2010) 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 771-6:2005.

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 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 EN 1996-1-1.

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 of masonry units manufactured from natural stone the width of which is equal to or greater than 80 mm, for which the main intended uses are common, facing or exposed masonry units in loadbearing or non-loadbearing building and civil engineering applications. These units are suitable for all forms of coursed or random masonry walling, including single leaf, cavity, partition, retaining and the external masonry to chimneys. They can provide fire protection, thermal insulation, sound insulation and sound absorption.

This European Standard includes natural stone masonry units of an overall non-rectangular parallelepiped shape, specially shaped and accessory units for internal and external application.

It defines the performance related to e.g. strength, petrographic description, density, porosity, dimensional accuracy, thermal conductivity, water absorption, and frost resistance and provides for the evaluation of conformity of the product to this European Standard. The marking requirements for products covered by this European Standard are also included.

This European Standard does not cover storey height panels, natural stone for paving, chimney flue linings nor units intended for use as damp proof course.

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 772-1:2000, *Methods of test for masonry units — Part 1: Determination of compressive strength*

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

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 998-2:2010, *Specification for mortar for masonry — Part 2: Masonry mortar*

EN 1052-2, *Methods of test for masonry — Part 2: Determination of flexural strength*

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 1936, *Natural stone test methods — Determination of real density and apparent density, and of total and open porosity*

EN 12371, *Natural stone test methods — Determination of frost resistance*

EN 12372, *Natural stone test methods — Determination of flexural strength under concentrated load*

EN 12407, *Natural stone test methods — Petrographic examination*

EN 12440, *Natural stone — Denomination criteria*

EN 12524, *Building materials and products — Hydrothermal properties — Tabulated design values*

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EN 13373, *Natural stone test methods — Determination of geometric characteristics on units*

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**
apparent density
ratio between the mass of the dry specimen and its apparent volume
- 3.2**
masonry unit
preformed component intended for use in masonry construction
- 3.3**
face
exposed surface of natural stone masonry units
- 3.4**
natural stone masonry unit
masonry unit manufactured from natural stone
- 3.5**
dimensions and surfaces
defined by reference to figure 1 relates to the name of the dimensions and surfaces for dimensioned stone and squared rubble stone
- 3.6**
co-ordinating size
size of the co-ordinating space allocated to a masonry unit including allowances for joints and tolerances
- 3.7**
work size
size of a masonry unit specified for its manufacture, to which the actual size conforms within permissible deviations
- 3.8**
actual size
size of a masonry unit as measured
- 3.9**
rubble stone
masonry unit squared or not of any shape with variable dimensions, whose face is rough or worked
- 3.10**
squared rubble stone
rubble stone which is squared and worked to dimensions declared by the manufacturer
- 3.11**
regular shaped masonry unit
masonry unit with an overall rectangular parallelepiped shape