

norm**NEN-EN 771-3**

Specificatie voor metselstenen -
Deel 3: Betonsteen (met normale en
lichte toeslagmaterialen)

Publicatie uitsluitend voor commentaar

Specification for masonry units - Part 3: Aggregate concrete masonry
units (dense and light-weight aggregates)

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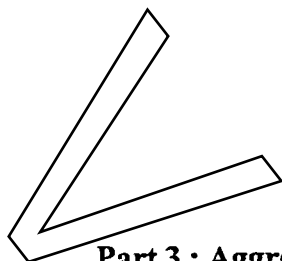
Voorbeeld
Preview

15 July, 1997

UDC

Descriptors :

English version



**Specification masonry units-
Part 3 : Aggregate concrete masonry units (dense and light-weight aggregates)**

Spécification pour éléments de maçonnerie
Partie 3 : Éléments de maçonnerie en béton
(granulats courants et légers)

Festlegungen für Mauersteine
Teil 3 : Mauersteine aus Beton (dichte und
porige Zuschläge)

This draft European Standard is submitted to CEN Members for Formal Vote. It has been drawn up by CEN Technical Committee CEN/TC 125.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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European Committee for Standardization
Comité Européen de Normalisation
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Central Secretariat: rue de Stassart 36, B-1050 Brussels

Note: Boxed text indicates that text which may be omitted if the standard is to be an 'ordinary' CEN standard as opposed a 'candidate harmonized standard'

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Foreword

This European Standard has been prepared by CEN TC 125 *Masonry*, the Secretariat of which is held by the British Standards Institution (BSI).

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association and supports the essential requirements of the EU Directives. For the relationship with EU Directives, see Annex ZA (informative) which is an integral part of this standard.

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by publication of an identical text or by endorsement, at the latest by and conflicting National Standards shall be withdrawn at the latest by

In accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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Preview

1 Scope

This Part of EN 771 specifies the characteristics and performance requirements for the physical and mechanical properties of aggregate concrete masonry units made from dense aggregate, lightweight aggregate or a combination of both.

Units to this Part of EN 771 are used exposed or non-exposed in common or facing masonry in building or civil engineering works.

This Part of EN 771 defines the performance related to strength, density, dimensional accuracy, geometry, thermal properties, water absorption and moisture movement measured according to the corresponding test methods contained in separate European Standards. It also contains references to fire, acoustic, frost resistance and sulfate resistance properties.

The evaluation of conformity of units is included in this European Standard and the marking requirements for units covered by this European Standard are also included.

This European Standard does not cover storey height panels, nor units intended for use as a damp proof course. This European Standard does not specify standard sizes for units.

2 Normative references

This European standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 772-1:1996	Methods of test for masonry units - Determination of compressive strength
EN 772-2:1996	Methods of test for masonry units - Determination of percentage area of voids perforated and hollow masonry units (by paper indentation)
EN 772-6:1996	Methods of test for masonry units - Determination of bending tensile strength of concrete masonry units
EN 772-11:1996	Methods of test for masonry units - Determination of water absorption of clay, aggregate concrete, manufactured stone and natural stone masonry units due to capillary action
EN 772-13:1996	Methods of test for masonry units - Determination of net and gross dry density of masonry units
EN 772-14:1996	Methods of test for masonry units - Determination of moisture movement of aggregate concrete masonry units
EN 772-16:1996	Methods of test for masonry units - Determination of size and dimensions (excluding natural stone masonry units)
EN 772-20:1996	Methods of test for masonry units - Test for flatness of plane surfaces and squareness of masonry units
EN 1745:1996	Masonry and masonry products - Methods for determining design thermal values
EN 20354:1993	Acoustics. Measurement of sound absorption in a reverberation room

3. Definitions and symbols

For the purpose of this European standard the following definitions apply.

3.1 Unit related definitions

3.1.1 masonry unit: A preformed component intended for use in masonry construction.

3.1.1.1 common masonry unit: A preformed component normally intended for use with no faces left visible and often covered.

3.1.1.2 facing masonry unit: A preformed component intended for use with one or more faces left visible and which may or may not be exposed.

3.1.1.3 exposed masonry unit: A facing preformed component intended for use with one or more faces left exposed to external climatic conditions without impermeable render or other equivalent protection.

3.2 Material related definition

3.2.1 aggregate concrete masonry unit: A preformed component manufactured from cement, aggregates and water and which may contain admixtures and additions and colouring pigments and other materials incorporated or applied during or subsequent to unit manufacture.

3.3 Size related definitions

3.3.1 dimensions and surfaces: The dimensions and surfaces of aggregate concrete units are defined by reference to figure 1.

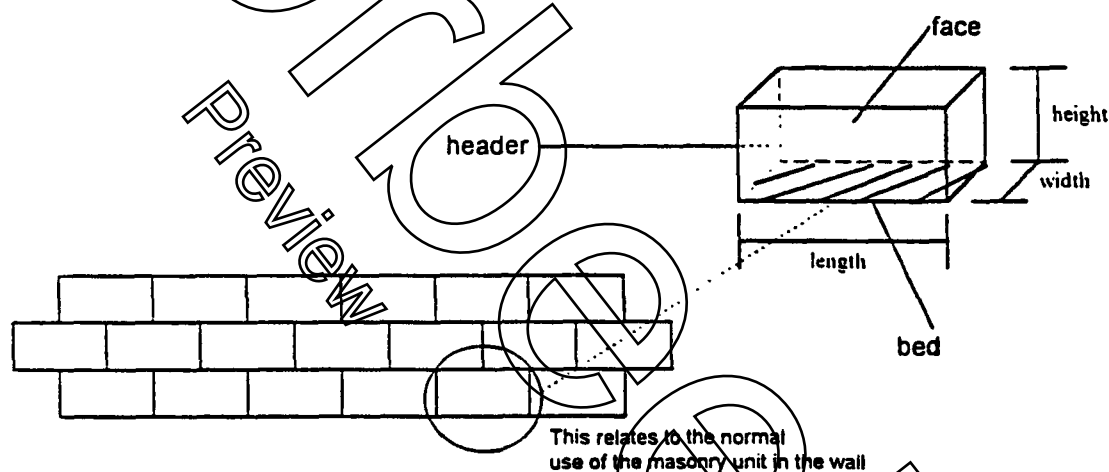


Figure 1: Dimensions and surfaces

3.3.2 co-ordinating size: The size of a co-ordinating space allocated to a unit including allowances for joints.

3.3.3 work size: The size of a unit specified for its manufacture, to which the actual size conforms within permissible deviations.

3.3.4 actual size: The size of a unit as measured.

3.4 Shape related definitions

3.4.1 regular shaped masonry unit: A unit with an overall rectangular parallelepiped shape.

3.4.2 frog: A depression formed in one or both of the bed faces, the total volume of which does not exceed 20 % of the gross volume of the unit.

3.4.3 specially shaped masonry unit: A masonry unit which is not a rectangular parallelepiped.

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

3.4.5 interlocking features: Shaped matched projections and indentations on units, e.g. tongue and groove systems.

3.4.6 hole: A formed void which may or may not pass completely through a masonry unit.

3.4.7 recess: Depression or indentation in one or more surfaces of a masonry unit (e.g. mortar pocket, rendering keyway, grooves to provide a discontinuity in the mortar joint, grip hole).

3.4.8 shell: Peripheral solid material between the hole(s) and the face or head of a unit.

3.5 Other definitions

3.5.1 declared value: Value that a manufacturer is confident of achieving, bearing in mind the precision of the test and the variability of the manufacturing process.

3.6 Symbols

<i>l</i>	length, in mm
<i>w</i>	width, in mm
<i>h</i>	height, in mm

4 Materials

4.1 General

The specifications of the materials of manufacture shall be included in the production control documentation. If European standards for the materials are available they shall be adopted as appropriate, but this need not apply in the case of aggregate grading.

4.2 Chloride content

When relevant to the uses for which the units are put on the market, the manufacturer shall declare the maximum chloride ion content of the units. The value shall be obtained by the summation of the chloride content of the constituent materials based on the maximum chloride content of the material permitted in its EN or declared by the producer and shall be expressed as the percentage by mass of the cement.

5 Requirements for units

5.1 General

The requirements and properties specified in this European standard shall be defined in terms of the test methods referred to in this clause and other procedures referred to in this European standard.

Alternative methods of test to the reference method specified in this European standard may be adopted, except for the initial type tests and in cases of dispute, provided that these alternative methods satisfy the following:

- a) a relationship can be shown to exist between the results from the reference test and those from the alternative test; and
- b) the information on which the relationship is based is available.

The requirements and the corresponding test methods given below are not always applicable to specially shaped and accessory units (see 3.4.3 and 3.4.4).

Note 1: The declaration that a unit or a unit property is of a particular class may be done at the manufacturer's responsibility. The classification of units should take account of the tolerance categories given.

Note 2: A declared value may be chosen from the classification system, if any, of the place of manufacture/use of the units.

The conformity criteria given in the following sub-clauses relate to initial type tests and to consignment testing. For production evaluation the conformity criteria shall be defined in the factory production control documentation, see 8.3.

5.2 Dimensions and tolerances

5.2.1 Dimensions The dimensions of the units shall be declared in *mm* for *l*, *w* and *h*, in that order, and measured in accordance with EN 772-16. Units shall be designated in terms of work size and in addition, the co-ordinating size may be given.

Note: The unit dimensions may be chosen from the classification system, if any, of the place of manufacture/use of the units.

If sampled in accordance with A.2 and tested in accordance with EN 772-16 the results shall be evaluated in accordance with B.1.

5.2.2 Tolerances The tolerances on declared work sizes of individual regular shaped units shall conform to table 1. Closer tolerances may be declared. The manufacturer shall declare the tolerance category of the units.

Table 1: Permissible deviations

Tolerance category	Permissible deviations (mm)					
	<i>l</i>		<i>w</i>		<i>h</i>	
D1	+3	-5	+3	-5	+3	-5
D2	+1	-3	+1	-3	+1	-3

Tolerances for non-regular shaped units shall be as given in table 1 or as declared.

These tolerances shall not apply to the dimensions between the surfaces of units which are manufactured to be non planar.

Bestelformulier

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