

**BS EN 771-3:2011+A1:2015**



**BSI Standards Publication**

# **Specification for masonry units**

Part 3: Aggregate concrete masonry units  
(Dense and lightweight aggregates)

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## National foreword

This British Standard is the UK implementation of EN 771-3:2011+A1:2015. It supersedes BS EN 771-3:2011, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to CEN text carry the number of the CEN amendment. For example, text altered by CEN amendment A1 is indicated by A1 A1.

EN 771-3:2011+A1:2015 is a “harmonized” European Standard and fully takes into account the requirements of the European Commission mandate M116, Masonry and related products, given under the EU Construction Products Regulation (Regulation (EU) No 305/2011).

EN 771-3 was the subject of transitional arrangements agreed under the Commission mandate. In the UK, the corresponding national standard was:

- BS 6073-1:1981, *Precast concrete masonry units — Part 1: Specification for precast concrete masonry units*;

which was withdrawn in 2005.

The UK participation in its preparation was entrusted by Technical Committee B/519, Masonry and associated testing, to Subcommittee B/519/1, Masonry units.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

EN 771-3 specifies the characteristics and performance requirements for aggregate concrete masonry units available throughout the CEN member countries. It aims to do so in product performance terms, avoiding as far as possible prescriptive requirements but permitting all the traditional designations of aggregate concrete units available throughout Europe. The concept of the declared value has been introduced. This is the value for the various properties referred to in this standard that the manufacturer claims for the product. There are other notable differences to which the national annex refers; in particular the supporting test methods are different and in respect of compressive strength, aggregate concrete masonry units are designated either Category I or Category II.

The UK National Annex NA to this standard provides an informative commentary on the differences between EN 771-3 and BS 6073-1. Nothing in this annex should be construed as specifying requirements other than those contained in the normative parts of this European Standard.

Masonry units conforming to this standard need to be CE marked in accordance with the procedures in Annex ZA. The significance of the CE marking is that the product manufacturer claims compliance with the “harmonized” requirements given in the normative text of the product standard. These relate to the essential requirements of the EU Construction Products Regulation. Not all product characteristics need necessarily be given on the CE marking, but those product characteristics covered by regulations in force in each EU Member State, where the manufacturer intends that the product will be used, do need to be stated.

This standard has been written as a performance standard, unlike BS 6073-1, which was a combination of performance and recipe, leading to the following changes.

- There are no standard product sizes given and the distinction between brick and block has been removed. These names have been replaced by the term “masonry units”.
- The order in which the dimensions of blocks are specified has been changed from “length, height and thickness” to “length, width (previously called thickness) and height”.
- Tolerance categories on the manufacturer’s declared dimensions are specified.
- The limit on shell thickness for blocks and the limits on void percentages for bricks have been removed but the manufacturer is required to declare one of the groups defined in EN 1996-1-1 and/or the configuration in 5.3.1 of this standard.
- The manufacturer is required to declare the gross dry density of a unit and, when appropriate, the net dry density of the concrete. The tolerance on these declared values is given.
- The limit on minimum strength has been removed but the manufacturer has to declare the strength together with the category of unit.
- The limit on drying shrinkage has been removed and replaced by a requirement for manufacturers to declare the moisture movement value when units are marketed for structural purposes.
- When relevant the manufacturer has to declare the thermal properties, freeze/thaw durability, water absorption by capillarity and water vapour permeability of units.
- The manufacturer has to declare the reaction to fire class of a unit, and when intended to be used in structural masonry, its bond strength.
- A requirement for flexural bond strength of masonry units in combination with mortar has been included and is applicable only when required by national provisions valid in the intended place of use and relevant to the application.
- A requirement, where national provisions exist, for a declaration on release and/or content of dangerous substances.
- A requirement for the manufacturer to establish product conformity with its declared properties is included in this standard. This requires both product type determination and the operation of continuing factory production control procedures that have to be fully documented. An outline is included in 8.
- An informative annex, Annex ZA, is included which indicates those clauses in this “harmonized” Standard and the procedures to be followed in order to CE mark a product.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Published by BSI Standards Limited 2016

ISBN 978 0 580 79495 7

ICS 91.100.30

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 October 2011.

**Amendments/corrigenda issued since publication**

Date	Text affected
31 March 2016	Implementation of CEN amendment A1:2015. National Foreword and National Annex NA also updated

English Version

## Specification for masonry units - Part 3: Aggregate concrete masonry units (Dense and lightweight aggregates)

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

Festlegungen für Mauersteine - Teil 3: Mauersteine aus  
Beton (mit dichten und porigen Zuschlägen)

This European Standard was approved by CEN on 10 March 2011 and includes Amendment 1 approved by CEN on 11 January 2015.

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