Betoonvalmistooted. Tala-plokk-vahelaesüsteemid. Osa 3: Keraamilised plokid

Precast concrete products - Beam-and-block floor systems - Part 3: Clay blocks

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 15037-3:2009+A1:2011 sisaldab Euroopa standardi EN 15037-3:2009+A1:2011 ingliskeelset teksti.	This Estonian standard EVS-EN 15037-3:2009+A1:2011 consists of the English text of the European standard EN 15037-3:2009+A1:2011.
Standard on kinnitatud Eesti Standardikeskuse 31.03.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 31.03.2011 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 23.02.2011.	Date of Availability of the European standard text 23.02.2011.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 91.100.30

EUROPEAN STANDARD

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English Version

Precast concrete products - Beam-and-block floor systems - Part 3: Clay blocks

Produits préfabriqués en béton - Systèmes de planchers à poutrelles et entrevous - Partie 3: Entrevous en terre cuite

Betonfertigteile - Balkendecken mit Zwischenbauteilen - Teil 3: Keramische Zwischenbauteile

This European Standard was approved by CEN on 25 January 2009 and includes Amendment 1 approved by CEN on 10 January 2011.

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

This European Standard 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

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The numbering of clauses is strictly related to EN 13369:2004 Common rules for precast concrete products, at least for the first three digits. When a clause of EN 13369:2004 is not relevant or included in a more general reference of this standard, its number is omitted and this may result in a gap on numbering.

Foreword

This document (EN 15037-3:2009+A1:2011) has been prepared by Technical Committee CEN/TC 229 “Precast concrete products”, the secretariat of which is held by AFNOR. This document was examined by and agreed with a joint working party appointed by the Liaison Group CEN/TC 229 – CEN/TC 250, particularly for its compatibility with structural Eurocodes.

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 August 2011, and conflicting national standards shall be withdrawn at the latest by August 2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document includes Amendment 1, approved by CEN on 2011-01-10.

This document supersedes EN 15037-3:2009.

The start and finish of text introduced or altered by amendment is indicated in the text by tags [A1⟩ ⟨A1].

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

European standard for beam-and-block floor system is made of 5 parts:

— EN 15037-1, *Precast concrete products — Beam-and-block floor systems — Part 1: Beams;*

— EN 15037-2, *Precast concrete products — Beam-and-block floor systems — Part 2: Concrete blocks;*

— EN 15037-3, *Precast concrete products — Beam-and-block floor systems — Part 3: Clay blocks;*

— [A1⟩ EN 15037-4 ⟨A1], *Precast concrete products — Beam-and-block floor systems — Part 4: Polystyrene blocks;*

— prEN 15037-5, *Precast concrete products — Beam-and-block floor systems — Part 5: Lightweight blocks.*

This European Standard is one of a series of product standards for precast concrete products.

For common aspects of concrete products, reference is made to EN 13369, from which also the relevant requirements of the EN 206-1 are taken.

The references to EN 13369 by CEN/TC 229 product standards are intended to make them homogeneous and to avoid repetitions of similar requirements.

[A1⟩ Eurocodes are taken as a common reference for design aspects. The installation of some structural precast concrete products is dealt with by EN 13670:2009 *Execution of concrete structures.* In all countries it can be accompanied by alternatives for national application. ⟨A1]

The program of standards for structural precast concrete products comprises the following standards, in some cases consisting on several parts:

EN 1168, *Precast concrete products — Hollow core slabs*

EN 12794, *Precast concrete products — Foundation piles*

EN 12843, *Precast concrete products — Masts and poles*

EN 13224, *Precast concrete products — Ribbed floor elements*

EN 13225, *Precast concrete products — Linear structural elements*

EN 13693, *Precast concrete products — Special roof elements*

EN 13747, *Precast concrete products — Floor plates for floor systems*

EN 13978, *Precast concrete products — Precast concrete garages*

EN 14843, *Precast concrete products — Stairs*

EN 14844, *Precast concrete products — Box culverts*

EN 14991, *Precast concrete products — Foundation elements*

EN 14992, *Precast concrete products — Wall elements*

EN 15037-1, *Precast concrete products — Beam-and-block floor systems — Part 1: Beams*

EN 15050, *Precast concrete products — Bridge elements*

EN 15258, *Precast concrete products — Retaining wall elements*

This European Standard defines in Annex ZA the application methods of CE marking to products designed using the relevant EN Eurocodes (EN 1992-1-1:2004 and EN 1992-1-2:2004). Where, in default of applicability conditions of EN Eurocodes to the works of destination, design provisions other than EN Eurocodes are used for mechanical strength and/or fire resistance, the conditions to affix CE marking to the product are described in ZA.3.

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

Introduction

The evaluation of conformity refers to the clay blocks which are supplied to the market and covers all the production operations carried out in the factory.

For design rules, reference is made to EN 1992-1-1:2004. Additional complementary rules are provided where necessary.

1 Scope

This European Standard deals with the requirements and the basic performance criteria for blocks made in clay, used in conjunction with precast concrete beams in compliance with EN 15037-1, with or without cast-in-situ concrete for the construction of beam-and-block floor and roof systems.

Examples of typology of floor and roof systems are given in Annex B of EN 15037-1:2008.

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 771-1:2003, *Specification for masonry units — Part 1: Clay masonry units*

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

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

EN 1745, *Masonry and masonry products — Methods for determining design thermal values*

EN 12390-4:2000, *Testing hardened concrete — Part 4: Compressive strength — Specification for testing machines*

EN 13369:2004, *Common rules for precast concrete products*

〚A1〉 EN 13501-1 〈A1〛, *Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests*

EN 15037-1:2008, *Precast concrete products — Beam-and-block floor systems — Part 1: Beams*

〚A1〉 *deleted text* 〈A1〛

EN ISO 717-1, *Acoustics — Rating of sound insulation in buildings and of building elements — Part 1: Airborne sound insulation (ISO 717-1:1996)*

EN ISO 717-2, *Acoustics — Rating of sound insulation in buildings and of building elements — Part 2: Impact sound insulation (ISO 717-2:1996)*

〚A1〉 EN ISO 10140-3, *Acoustics — Laboratory measurement of sound insulation of building elements — Part 3: Measurement of impact sound insulation (ISO 10140-3:2010)* 〈A1〛

〚A1〉 EN ISO 10140-5*, Acoustics — Laboratory measurement of sound insulation of building elements — Part 5: Requirements for test facilities and equipment (ISO 10140-5:2010)* 〈A1〛