## საქართველოს სტანდარტი

ქარხნული ბეტონის პროდუქტი-ხაზოვანი კონსტრუქციული ელემენტები

საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტო თბილისი

## სსტ ეწ 13225:2013/2013

## საინფორმაციო მონაცემები

- 1 **შემუშავებულია** საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს სტანდარტების დეპარტამენტის მიერ
- 2 დამტკიცებულია და შემოღებულია სამოქმედოდ საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს 2013 წლის 11 ნოემბრის № 84 განკარგულებით
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#### 4 პირველად

**5 რეგისტრირებულია** საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 2013 წლის 11 ნოემბერი №268-1.3-5590

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**EUROPÄISCHE NORM** 

EN 13225

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#### **English Version**

## Precast concrete products - Linear structural elements

Produits préfabriqués en béton - Éléments de structure linéaires

Betonfertigteile - Stabförmige tragende Bauteile

This European Standard was approved by CEN on 19 January 2013.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

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#### **Foreword**

This document (EN 13225:2013) has been prepared by Technical Committee CEN/TC 229 "Precast concrete products", the secretariat of which is held by AFNOR.

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 October 2013, and conflicting national standards shall be withdrawn at the latest by October 2013.

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 supersedes EN 13225:2004.

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.

Compared with the previous edition, the following changes have been made:

- a) addition of lightweight concrete in the Scope;
- b) change in subclause 4.3.3.3 Seismic behaviour;
- c) addition of subclause 4.3.9 Dangerous substances;
- d) changes referring to dangerous substances in Annex ZA.

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

For common aspects reference is made to EN 13369 *Common rules for precast products*, from which also the relevant requirements of the EN 206-1 *Concrete — Part 1: Specification, performances, production and conformity* 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.

This standard was examined by and agreed with a joint working group party appointed by the Liaison group CEN/TC 229 – CEN/TC 250, particularly for its compatibility with structural Eurocodes. Eurocodes are taken as a common reference for design aspects. The installation of some structural precast concrete products is dealt with by EN 13670 Execution of concrete structures.

The programme of standards for structural precast concrete products comprises the following standards, in some cases consisting of 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 13225:2013 (E)

- 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, Precast concrete products Beam-and-block floor systems
- EN 15258, Precast concrete products Retaining wall elements
- EN 15050, Precast concrete products Bridge elements

This standard defines in Annex ZA the application methods of CE marking to products designed using the relevant EN Eurocodes (EN 1992-1-1, EN 1992-1-2 and EN 1998-1). 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.3.4.

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

### Introduction

The evaluation of conformity given in this document refers to the completed precast elements which are supplied to the market and covers all the production operations carried out in the factory.

For design rules and resistance to fire, reference is made to EN 1992-1-1 and EN 1992-1-2. Additional complementary rules are provided where necessary.

In 4.3.3 and 4.3.4, this document includes specific provisions resulting from the application of EN 1992-1-1, EN 1998-1 and EN 1992-1-2 rules made specific for the concerned product. The use of these provisions is consistent with a design of works made with EN 1992-1-1 and EN 1992-1-2.