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NSAI Standards

Irish Standard
I.S. EN 13369:2018

Common rules for precast concrete products

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I.S. EN 13369:2018

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National Foreword

I.S. EN 13369:2018 is the adopted Irish version of the European Document EN 13369:2018, Common rules for precast concrete products

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 13369

April 2018

ICS 91.100.30

Supersedes EN 13369:2013

English Version

Common rules for precast concrete products

Règles communes pour les produits préfabriqués en béton

Allgemeine Regeln für Betonfertigteile

This European Standard was approved by CEN on 10 January 2018.

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European foreword

This document (EN 13369:2018) 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of an identical text or by endorsement, at the latest by October 2018, and conflicting national standards shall be withdrawn at the latest by April 2021.

This document supersedes EN 13369:2013.

The main technical changes that have been made in this new edition are the following ones:

a) normative references have been updated taking into account the new version of EN 206;

b) terms and definitions have been reviewed according to Construction Product Regulation, term and definition of "Product-type" are added;

c) clause for reclaimed crushed aggregates and recycled coarse aggregates is reviewed;

d) clause of Assessment and verification of constancy of performance is revised according to the wording of Construction Product Regulation;

EN 13369 is a common reference for the following group of specific product standards prepared by Technical Committee CEN/TC 229:

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

— EN 12737, *Precast concrete products — Floor slats for livestock*;

— EN 12794, *Precast concrete products — Foundation piles*;

— EN 12839, *Precast concrete products — Elements for fences*;

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

— EN 13198, *Precast concrete products — Street furniture and garden products*;

— 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 13748-1, *Terrazzo tiles — Part 1: Terrazzo tiles for internal use*;

— EN 13748-2, *Terrazzo tiles — Part 2: Terrazzo tiles for external use*;

— EN 13978-1, *Precast concrete products — Precast concrete garages — Part 1: Requirements for reinforced garages monolithic or consisting of single sections with room dimensions*;

— EN 14843, *Precast concrete products — Stairs*;

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— 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 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*;

— EN 15037-4, *Precast concrete products — Beam-and-block floor systems — Part 4: Expanded polystyrene blocks*;

— EN 15037-5, *Precast concrete products — Beam-and-block floor systems — Part 5: Lightweight blocks for simple formwork*;

— EN 15050, *Precast concrete products — Bridge elements*;

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

— EN 15435, *Precast concrete products — Normal weight and lightweight concrete shuttering blocks — Product properties and performances*;

— EN 15498, *Precast concrete products — Wood-chip concrete shuttering blocks — Product properties and performances*.

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.

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Introduction

This document is intended to outline the general common requirements applicable to a large variety of precast concrete products manufactured in a factory environment. It acts as a reference standard for other standards to enable a more consistent approach to standardization in the field of precast concrete products and to reduce the variations brought about by a large number of standards produced in parallel by different groups of experts. At the same time, it allows those experts the flexibility to include variations in specific product standards where they are required.

This standard has been produced as part of the total CEN programme for construction and refers to the relevant specifications of associated standards EN 206 for concrete and EN 1992 for the design of concrete structures. The installation of some precast concrete products is dealt with by EN 13670.

As it is not a harmonized standard, it may not be used on its own for the purpose of CE marking of precast concrete products.

The design of precast concrete products should be verified to ensure the fitness of their properties for the particular application, particular attention being paid to design co-ordination with other parts of the construction.

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1 Scope

This document specifies the requirements, the basic performance criteria and the Assessment and Verification of Constancy of Performance (AVCP) for unreinforced, reinforced and prestressed precast concrete products made of compact light-, normal- and heavyweight concrete according to EN 206 with no appreciable amount of entrapped air other than entrained air. Concrete containing fibres for other than mechanical properties (steel, polymer or other fibres) is also covered. It does not cover prefabricated reinforced components of lightweight aggregate concrete with open structure.

It may also be used to specify products for which there is no standard. Not all of the requirements (Clause 4) of this standard are relevant to all precast concrete products.

If a specific product standard exists, it takes precedence over this document.

The precast concrete products dealt with in this standard are factory produced for building and civil engineering works. This document can also be applied to products manufactured in temporary plants on site if the production is protected against adverse weather conditions and controlled following Clause 6 provisions.

The analysis and design of precast concrete products is not within the scope of this document but it does offer, for non-seismic zones, information about:

— the choice of partial safety factors defined by the pertinent Eurocode;

— the definition of some requirements for prestressed concrete products.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 206:2013+A1:2016, *Concrete — Specification, performance, production and conformity*

EN 934-2, *Admixtures for concrete, mortar and grout — Part 2: Concrete admixtures — Definitions, requirements, conformity, marking and labelling*

EN 1008, *Mixing water for concrete — Specification for sampling, testing and assessing the suitability of water, including water recovered from processes in the concrete industry, as mixing water for concrete*

EN 1097-6, *Tests for mechanical and physical properties of aggregates — Part 6: Determination of particle density and water absorption*

EN 1992-1-1:2004[1], *Eurocode 2: Design of concrete structures — Part 1-1: General rules and rules for buildings*

EN 1992-1-2:2004[2], *Eurocode 2: Design of concrete structures — Part 1-2: General rules — Structural fire design*

EN 10080:2005, *Steel for the reinforcement of concrete — Weldable reinforcing steel — General*

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[1] As impacted by EN 1992-1-1:2004/AC:2010 and EN 1992-1-1:2004/A1:2014.

[2] As impacted by EN 1992-1-2:2004/AC:2008.

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