Irish Standard
I.S. EN 13670:2009

Execution of concrete structures

I.S. EN 13670:2009

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

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This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

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Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

This Irish Standard is the official English language version of I.S. EN 13670:2009, prepared by Technical Committee CEN/TC 104, "Concrete and related products ". This document supersedes I.S. ENV 13670-1:2000.

Where a normative part of this EN allows for a choice to be made at the national level the standard will identify this to given in the execution specification.

To enable EN 13670:2009 to be used in Ireland requirements for the execution specification are published in a National Annex, NA to I.S. EN 13670:2009 *Irish National Annex to I.S. EN 13670:2009 (Execution of concrete structures).*

If this standard has been changed (revised/amended/corrected) and the National Annex has yet to be revised to account for the change(s), the National Annex for the previous version is available. Judgement by a competent person must be applied if using guidance contained therein.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

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I.S. EN 13670:2009

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 13670

December 2009

ICS 91.080.40

Supersedes ENV 13670-1:2000

English Version

Execution of concrete structures

Exécution des structures en béton

Ausführung von Tragwerken aus Beton

This European Standard was approved by CEN on 17 September 2009.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, 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.

EUROPEAN COMMITTEE FOR STANDARDIZATION
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EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 13670:2009) has been prepared by Technical Committee CEN/TC 104 “Concrete and related products”, the secretariat of which is held by DIN.

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 June 2010, and conflicting national standards shall be withdrawn at the latest by June 2010.

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 ENV 13670-1:2000.

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 EC Directive(s).

Because of the close connection between design rules and rules for execution, CEN/TC 104/SC 2 has developed this standard in liaison with CEN/TC 250/SC 2, and CEN TC 229

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, 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 the United Kingdom.

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Introduction

This European Standard applies to the execution of concrete structures to achieve the intended level of safety and serviceability during its service life, as given by EN 1990, *Eurocode – Basis of structural design,* EN 1992, *Eurocode 2 – Design of concrete structures* and EN 1994, *Eurocode 4 – Design of composite steel and concrete structures*, with the Nationally Determined Parameters (NDPs) applicable in the place of use.

This European Standard has three functions:

a) to transfer the requirements set during design to the constructor i.e. to be a link between design and execution;

b) to give a set of standardized technical requirements for the execution when ordering a concrete structure;

c) to serve as a check list for the designer to ensure that he provides the constructor with all relevant technical information for the execution of the structure (see Annex A).

In order to achieve these objectives, the design shall result in a set of documents and drawings giving all information required for the execution of the work in accordance with the plans. This set of documents is, in this European Standard, referred to as the "execution specification". This standard leaves a number of items open to be decided in the execution specification.

In areas where national provisions shall apply these should be referred to in the execution specification.

It is recognised in this European Standard that areas such as detailed requirements for competence of personnel, and details related to the Quality Management are within the competence of the Member States.

If the national CEN member publishes a National Annex to this standard, it may refer to national standards approved and published by the CEN member or national provisions, which supplement this standard, alternatively the supplementing rules can be given directly in the National Annex

A detailed overview of the system of European Standards related to concrete works is shown in Figure 1.

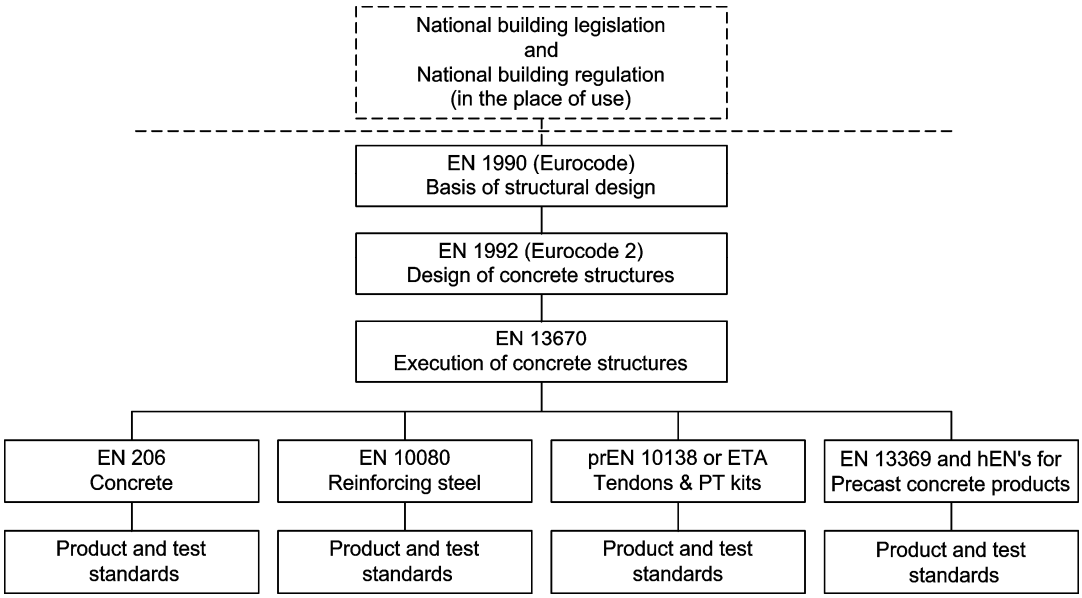

Figure 1 — System of European Standards as basis for design, execution and materials selection for concrete works (only main modules)

1 Scope

(1) This European Standard gives common requirements for execution of concrete structures, it applies to both in-situ works and construction using prefabricated concrete elements.

(2) This standard expects the execution specification to state all the specific requirements relevant to the particular structure.

(3) This standard is applicable to permanent as well as temporary concrete structures.

(4) Additional or different requirements should be considered and, if required, given in the execution specification when using:

a) lightweight aggregate concrete;

b) other materials (e.g. fibres) or constituent materials;

c) special technologies/innovative designs.

(5) This standard does not apply to concrete members used only as equipment or construction aids for the execution.

(6) This standard does not cover the specification, production and conformity of concrete.

(7) This standard is not applicable to the production of precast concrete elements made in accordance with product standards.

(8) This standard does not cover safety and health aspects of execution, or third party safety requirements.

(9) This standard does not cover contractual issues or responsibilities for the identified actions.

NOTE It is within the concept of this standard that supplementing requirements can be given for the individual project in the execution specification, on a national level in a national annex, or on a general basis in European standards for special applications e.g. standards for special geotechnical works.

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 206-1, *Concrete — Part 1: Specification, performance, production and conformity*

EN 446, *Grout for prestressing tendons — Grouting procedures*

EN 447, *Grout for prestressing tendons — Basic requirements*

EN 523, *Steel strip sheaths for prestressing tendons — Terminology, requirements, quality control*

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

EN ISO 17660-1, *Welding — Welding of reinforcing steel — Part 1: Load-bearing welded joints (ISO 17660-1:2006)*

EN ISO 17660-2, *Welding — Welding of reinforcing steel — Part 2: Non load-bearing welded joints (ISO 17660-2:2006)*