Products and systems for the protection and repair of concrete structures - Test methods - Reference concretes for testing

EESTI STANDARDIKESKUS
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NATIONAL FOREWORD

See Eesti standard EVS-EN 1766:2017 sisaldab Euroopa standardi EN 1766:2017 ingliskeelset teksti.	This Estonian standard EVS-EN 1766:2017 consists of the English text of the European standard EN 1766:2017.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 08.02.2017.	Date of Availability of the European standard is 08.02.2017.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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EUROPEAN STANDARD

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EUROPÄISCHE NORM

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English Version

Products and systems for the protection and repair of concrete structures - Test methods - Reference concretes for testing

Produits et systèmes pour la protection et la réparation des structures en béton - Méthodes d'essais - Bétons de référence pour essais

Produkte und Systeme für den Schutz und die Instandsetzung von Betontragwerken - Prüfverfahren - Referenzbetone für Prüfungen

This European Standard was approved by CEN on 4 December 2016.

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, Serbia, 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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European foreword

This document (EN 1766:2017) 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 August 2017, and conflicting national standards shall be withdrawn at the latest by November 2018.

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

This document supersedes EN 1766:2000.

The main technical changes that have been made in this new edition are as follows:

a) Definition of 3 new reference MC concretes;

b) Definition of thresholds for the tensile bond strength for reference concretes C(0,40); C(0,45); C(O,70) and new MC concretes.

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, Serbia, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies the composition, characteristics and preparation procedure for reference concrete substrates, which are to be used in the test methods to measure performances of products and systems for the repair and protection of concrete structures.

The provisions of this Standard are applicable to concrete with a maximum aggregate size of 16 mm or 20 mm or with a maximum aggregate size of 8 mm or 10 mm.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 197-1, *Cement - Part 1: Composition, specifications and conformity criteria for common cements*

EN 206, *Concrete — Specification, performance, production and conformity*

EN 933-2, *Tests for geometrical properties of aggregates - Part 2: Determination of particle size distribution - Test sieves, nominal size of apertures*

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 1542, *Products and systems for the protection and repair of concrete structures - Test methods - Measurement of bond strength by pull-off*

EN 12390-3, *Testing hardened concrete - Part 3: Compressive strength of test specimens*

EN 12620, *Aggregates for concrete*

3 Principle

Reference concrete test specimens with reproducible surface texture and appropriate strength are cast to enable the resistance against physical or chemical exposure of repair materials to be evaluated.

The required surface roughness is obtained by grit blasting the surface of the hardened concrete.

4 Equipment

4.1 Concrete mixer (forced action pan mixer)

4.2 Moulds

Moulds for producing concrete specimens, of non-absorbent, rigid material, not attacked by cement paste, of a size 300 mm × 300 mm × 100 mm or other sizes specified in individual test method standards, corresponding to the property to be tested, shall be used.

4.3 High frequency vibrating table

Or vibration rod suitable for compaction of the concrete in the moulds.