

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

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1766:2000 sisaldab Euroopa standardi EN 1766:2000 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 17.07.2000 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on .

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 1766:2000 consists of the English text of the European standard EN 1766:2000.

This standard is ratified with the order of Estonian Centre for Standardisation dated 17.07.2000 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text .

The standard is available from Estonian standardisation organisation.

ICS 91.080.40, 91.100.30

Võtmesõnad:

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ICS 91.080.40; 91.100.30

**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 1999-07-30.

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

The European Standards exist 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

**Central Secretariat: rue de Stassart 36, B-1050 Brussels**

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## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 104 "Concrete (performance, production, placing and compliance criteria)", 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 July 2000, and conflicting national standards shall be withdrawn at the latest by December 2002.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

This European Standard describes a method for making consistent reference concrete test specimens with a reproducible surface texture. Specifications for the products and systems for the repair and the protection of concrete structures will be subject of separate standards.

For the time being, five types of reference concrete are needed. With further experience of test methods, it is anticipated that they can be modified and that the number of reference concretes will be reduced.

## 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 performance requirements 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

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

ENV 197-1, *Cement - Composition, specifications and conformity criteria - Part 1: Common cements*.

prEN 206, *Concrete - 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, specifications and requirements*.

prEN 1008, *Mixing water for concrete – Specification for sampling, testing and assessing the suitability of water, including wash water from recycling in installations in the concrete industry, as mixing water for concrete*.

EN 1542, *Products and systems for the protection and repair of concrete structures - Test methods – Pull-off test*.

prEN 12390, *Testing concrete - Determination of compressive strength – Specification for compression testing machines*.

## 3 Principle

Reference concrete test specimens with reproducible surface texture and appropriate strength are cast to enable the physical properties 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 x 300 mm x 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.