

**Betooni ja mördi keemilised lisandid. Katsemeetodid.
Osa 1: Katsetamisel kasutatav etalonbetoon ja
etalonmört KONSOLIDEERITUD TEKST**

Admixtures for concrete, mortar and grout - Test methods -
Part 1: Reference concrete and reference mortar for testing
CONSOLIDATED TEXT

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 480-1:2006+A1:2011 sisaldab Euroopa standardi EN 480-1:2006+A1:2011 ingliskeelset teksti. Standard on kinnitatud Eesti Standardikeskuse 29.07.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas. Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 22.06.2011. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 480-1:2006+A1:2011 consists of the English text of the European standard EN 480-1:2006+A1:2011. This standard is ratified with the order of Estonian Centre for Standardisation dated 29.07.2011 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 22.06.2011. The standard is available from Estonian standardisation organisation.
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English Version

**Admixtures for concrete, mortar and grout - Test methods - Part
1: Reference concrete and reference mortar for testing**

Adjuvants pour béton, mortier et coulis - Méthodes d'essais
- Partie 1: Béton et mortier de référence pour essais

Zusatzmittel für Beton, Mörtel und Einpressmörtel -
Prüfverfahren - Teil 1: Referenzbeton und Referenzmörtel
für Prüfungen

This European Standard was approved by CEN on 19 June 2006 and includes Amendment 1 approved by CEN on 12 May 2011.

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.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 480-1:2006+A1:2011) 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 December 2011, and conflicting national standards shall be withdrawn at the latest by December 2011.

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 includes Amendment 1, approved by CEN on 2011-05-12.

This document supersedes  EN 480-1:2006 .

The start and finish of text introduced or altered by amendment is indicated in the text by tags  .

This European Standard is part of the series EN 480 *Admixtures for concrete, mortar and grout – Test methods* which comprises the following:

Part 1 *Reference concrete and reference mortar for testing*

Part 2 *Determination of setting time*

Part 4 *Determination of bleeding of concrete*

Part 5 *Determination of capillary absorption*

Part 6 *Infrared analysis*

Part 8 *Determination of the conventional dry material content*

Part 10 *Determination of water soluble chloride content*

Part 11 *Determination of air void characteristics in hardened concrete*

Part 12 *Determination of the alkali content of admixtures*

Part 13 *Reference masonry mortar for testing mortar admixtures*

Part 14 *Determination of the effect on corrosion susceptibility of reinforcing steel by potentiostatic electrochemical test*

This standard is applicable together with the standards of the series EN 934 *Admixtures for concrete, mortar and grout – Concrete admixtures*.

Notification of revisions:

The previous edition EN 480-1:1997 has been revised as follows:

— choice of two strength classes for reference cement;

- deletion of the requirement to perform the test with four different cement types;
- changes in Table 1 for grading of aggregate;
- temperature of stored materials and fresh concrete;
- details of mixing and testing;
- details of determination of consistence;
- general editorial revision.

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, Croatia, 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.

1 Scope

This European Standard specifies the constituent materials, the composition and the mixing method to produce reference concrete and reference mortar for testing the efficacy and the compatibility of admixtures in accordance with the series EN 934.

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 196-1, *Methods of testing cement — Part 1: Determination of strength*

EN 196-2, *Methods of testing cement — Part 2: Chemical analysis of cement*

EN 196-6, *Methods of testing cement — Part 6: Determination of fineness*

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

EN 413-2, *Masonry cement — Part 2: Test methods*

EN 934 (all parts), *Admixtures for concrete, mortar and grout*

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 12350-6 *Testing fresh concrete — Part 6: Density*

EN 12350-7, *Testing fresh concrete — Part 7: Air content — Pressure methods*

EN 12390-1, *Testing hardened concrete — Part 1: Shape, dimensions and other requirements for specimens and moulds*

EN 12390-2, *Testing hardened concrete — Part 2: Making and curing specimens for strength tests*

EN 12620, *Aggregates for concrete*

3 Constituent materials

3.1 Cement

The reference concrete and mortar shall be made with a CEM I cement of strength class 42,5 or 52,5 conforming to EN 197-1.

The cement used shall have a C_3A content of 7 % to 11 % by mass calculated from chemical analysis according to EN 196-2 A_1 and a specific surface of (3 600 to 4 600) cm^2/g determined according to EN 196-6. A_1