



**SLOVENSKI STANDARD**  
**oSIST prEN 480-15:2011**  
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**Kemijski dodatki za beton, malto in injekcijsko maso - Metode preskušanja - 15.**  
**del: Referenčni beton in metode za preskušanje spreminjanja viskoznosti**  
**dodatkov**

Admixtures for concrete, mortar and grout - Test methods - Part 15: Reference concrete  
and method for testing viscosity modifying admixtures

Zusatzmittel für Beton, Mörtel und Einpressmörtel - Prüfverfahren - Teil 15:  
Referenzbeton und Prüfverfahren zur Prüfung von viskositätsmodifizierenden  
Zusatzmitteln

[SIST EN 480-15:2013](https://standards.iteh.ai/catalog/standards/sist/0bec2956-0edf-41a6-bc25-571cf43389bb/sist-en-480-15-2013)

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**Ta slovenski standard je istoveten z: prEN 480-15**

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**ICS:**

91.100.30      Beton in betonski izdelki      Concrete and concrete  
products

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EUROPEAN STANDARD  
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**prEN 480-15**

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ICS 91.100.30

English Version

## Admixtures for concrete, mortar and grout - Test methods - Part 15: Reference concrete and method for testing viscosity modifying admixtures

Zusatzmittel für Beton, Mörtel und Einpressmörtel -  
Prüfverfahren - Teil 15: Referenzbeton und Prüfverfahren  
zur Prüfung von viskositätsmodifizierenden Zusatzmitteln

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 104.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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SIST EN 480-15:2013

<https://standards.iteh.ai/catalog/standards/sist/0bec2956-0edf-41a6-bc25-571cf43389bb/sist-en-480-15-2013>

## Foreword

This document (prEN 480-15:2011) has been prepared by Technical Committee CEN/TC 104 "Concrete and related products", the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document has been drafted by Subcommittee 3 (SC 3) of CEN/TC 104 "Admixtures for concrete, mortar and grout".

This draft 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 *Potentiostatic electrochemical test for the measurement of corrosion susceptibility of steel*
- Part 15 *Reference concrete and method for testing viscosity modifying admixtures<sup>1)</sup>*

This European Standard is applicable together with the other standards of the EN 480 series.

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1) This part is under preparation.

**prEN 480-15:2011 (E)****1 Scope**

This European Standard specifies the constituent materials, the composition and the mix procedure to produce a reference concrete with a prescribed consistence and segregated portion for testing viscosity modifying admixtures as defined EN 934-2:2009/prA1:2010. It also describes how to determine the requirements for the test mix in comparison with the control mix.

**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 934-2:2009/prA1:2010, *Admixtures for concrete, mortar and grout — Part 2: 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 12350-7, *Testing fresh concrete — Part 7: Air content — Pressure method*

EN 12350-8, *Testing fresh concrete — Part 8: Self-compacting concrete – Slump-flow test*

EN 12350-11, *Testing fresh concrete — Part 11: Self-compacting concrete – Sieve segregation test*

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

EN 12620, *Aggregates for concrete*

**3 Constituent materials****3.1 Cement**

The reference concrete 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<sub>3</sub>A content of (7 to 11) % by mass calculated from chemical analysis according to EN 196-2 and a specific surface of (3 600 to 4 600) cm<sup>2</sup>/g determined according to EN 196-6.

### 3.2 Aggregate

A natural normal weight aggregate conforming to EN 12620 with low water absorption ( $\leq 2\%$  by mass) shall be used. The grading shall conform to Table 1.

**Table 1 — Aggregate for reference concrete**

Aperture size - mm	Percentage by mass passing the test sieve
16	95 – 100
12	85 – 100
8	62 – 74
4	42 – 52
2	28 – 38
1	19 – 29
0,500	11 – 21
0,250	4 – 14
0,125	2 – 6
0,063	0 – 2

### 3.3 Mixing water

Water according to EN 1008, or distilled or de-ionised water shall be used as mixing water.

Wash water from concrete production shall not be used.

## 4 Reference concrete

Unless otherwise specified, tests on the reference concrete are performed as comparative tests. That is, the performance of the admixtures is determined by comparing the reference concrete containing the viscosity modifying admixture (test mix) with the reference concrete made without the viscosity modifying admixture (control mix) but otherwise with the same aggregate/cement ratio and constituents from the same delivery.

The requirements for the reference concrete are given in Table 2. The fresh concrete shall be fully compacted. The air content of the control shall not exceed 2 % by volume.