



BSI Standards Publication

## Admixtures for concrete, mortar and grout — Test methods

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Part 1: Reference concrete and reference mortar for testing

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## National foreword

This British Standard is the UK implementation of EN 480-1:2023. It supersedes BS EN 480-1:2014, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/517/3, Admixtures.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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### Amendments/corrigenda issued since publication

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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'essai - 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 28 May 2023.

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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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<b>Contents</b>		Page
<b>European foreword</b> .....		<b>3</b>
<b>1</b>	<b>Scope</b> .....	<b>5</b>
<b>2</b>	<b>Normative references</b> .....	<b>5</b>
<b>3</b>	<b>Terms and definitions</b> .....	<b>5</b>
<b>4</b>	<b>Constituent materials</b> .....	<b>6</b>
<b>4.1</b>	<b>Cement</b> .....	<b>6</b>
<b>4.2</b>	<b>Aggregate</b> .....	<b>6</b>
<b>4.2.1</b>	<b>Aggregate for reference concrete</b> .....	<b>6</b>
<b>4.2.2</b>	<b>Aggregate for reference mortar</b> .....	<b>6</b>
<b>4.3</b>	<b>Mixing water</b> .....	<b>6</b>
<b>5</b>	<b>Reference concrete</b> .....	<b>7</b>
<b>6</b>	<b>Reference mortar</b> .....	<b>7</b>
<b>7</b>	<b>Production of reference concrete</b> .....	<b>7</b>
<b>7.1</b>	<b>Mix proportion</b> .....	<b>7</b>
<b>7.2</b>	<b>Mixing and testing</b> .....	<b>8</b>
<b>8</b>	<b>Production of reference mortar</b> .....	<b>8</b>
<b>8.1</b>	<b>Mix proportions</b> .....	<b>8</b>
<b>8.2</b>	<b>Mixing and testing</b> .....	<b>8</b>
<b>9</b>	<b>Test report</b> .....	<b>9</b>

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## European foreword

This document (EN 480-1:2023) has been prepared by Technical Committee CEN/TC 104 “Concrete and related products”, the secretariat of which is held by SN.

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 January 2024, and conflicting national standards shall be withdrawn at the latest by January 2024.

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 480-1:2014.

This document is part of the EN 480 series, with the title *Admixtures for concrete, mortar and grout — Test methods*, which comprises the following parts:

- *Part 1: Reference concrete and reference mortar for testing* (the present document)
- *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 electro-chemical test*
- *Part 15: Reference concrete and method for testing viscosity modifying admixtures*

This document is intended to be used together with the standards of the EN 934 series, with the title of *Admixtures for concrete, mortar and grout*.

The main changes compared to the previous edition are listed below:

- a) the determination of the consistence of the reference mortar by workability in accordance with EN 413-2 is deleted as this option is no longer covered by EN 413-2;
- b) editorial changes.

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Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

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## 1 Scope

This document 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 EN 934 series.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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, *Method 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 12350-2, *Testing fresh concrete - Part 2: Slump test*

EN 12350-5, *Testing fresh concrete - Part 5: Flow table test*

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 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>