

SINGAPORE STANDARD

Specifications for admixtures for concrete, mortar and grout

– Part 2 : Concrete admixtures – Definitions,
requirements, conformity, marking and labelling

(This national standard is the identical implementation of EN 934-2:2009 + A1:2012 and is adopted with permission of CEN, Avenue Marnix 17, 1000 Brussels)

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– Part 2 : Concrete admixtures – Definitions, requirements, conformity, marking and labelling

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National Foreword

This Singapore Standard was prepared by the Technical Committee on Building Structure and Sub-structure under the purview of the Building and Construction Standards Committee.

This SS EN is a revision of SS EN 934-2:2008. It is the identical implementation of EN 934-2:2009+A1:2012 'Admixtures for concrete, mortar and grout – Part 2: Concrete admixtures – Definitions, requirements, conformity, marking and labelling' and is adopted with permission of CEN, Avenue Marnix 17, 1000 Brussels.

This standard is a part of the series SS EN 934 'Admixtures for concrete, mortar and grout' which additionally comprises the following parts:

- Part 1 Common requirements
- Part 4 Admixtures for grout for prestressing tendons – Definitions, requirements, conformity, marking and labeling
- Part 6 Sampling, conformity control and evaluation of conformity

This Singapore Standard is used with the standards of the EN 480 series which comprises test methods for admixtures (listed in Clause 2). The temperature specified in the test method is only for conformity testing requirements and may not represent the temperature when the material is used in local conditions.

At the time of publication, this standard is expected to be used as a reference in the Building and Construction Authority's 'Approved Document – Acceptable Solutions'.

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

NOTE

1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions.*
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English Version

Admixtures for concrete, mortar and grout - Part 2: Concrete admixtures - Definitions, requirements, conformity, marking and labelling

Adjuvants pour béton, mortier et coulis - Partie 2: Adjuvants pour bétons - Définitions, exigences, conformité, marquage et étiquetage

Zusatzmittel für Beton, Mörtel und Einpressmörtel - Teil 2: Betonzusatzmittel - Definitionen, Anforderungen, Konformität, Kennzeichnung und Beschriftung

This European Standard was approved by CEN on 24 April 2009 and includes Amendment 1 approved by CEN on 10 May 2012.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.





EUROPEAN COMMITTEE FOR STANDARDIZATION
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Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 934-2:2009+A1:2012) 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 2012, and conflicting national standards shall be withdrawn at the latest by December 2012.

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 supersedes A1 EN 934-2:2009 A1.

This document includes Amendment 1 approved by CEN on 2012-05-10.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of A1 EU Directive(s) A1.

For relationship with A1 EU Directive(s) A1, see informative Annex ZA, which is an integral part of this document.

This standard is a part of the series EN 934 "Admixtures for concrete, mortar and grout" which additionally comprises the following parts

Part 1: Common requirements

Part 3: Admixtures for masonry mortar — Definitions, requirements, conformity, marking and labelling

Part 4: Admixtures for grout for prestressing tendons — Definitions, requirements, conformity, marking and labelling

Part 5: Admixtures for sprayed concrete — Definitions, requirements, conformity, marking and labelling

Part 6: Sampling, conformity control and evaluation of conformity

This European Standard is used with the standards of the EN 480 series which comprises test methods for admixtures.

The annexes A and ZA are informative.

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, Turkey and the United Kingdom.

1 Scope

This European Standard specifies definitions and requirements for admixtures for use in concrete.

It covers admixtures for plain, reinforced and prestressed concrete which are used in site mixed, ready mixed concrete and precast concrete.

The performance requirements in this standard apply to admixtures used in concrete of normal consistence. They may not be applicable to admixtures intended for other types of concrete such as semi-dry and earth moist mixes.

Provisions governing the practical application of admixtures in the production of concrete, i.e. requirements concerning composition, mixing, placing, curing etc. of concrete containing admixtures are not part of this standard.

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 480-1, *Admixtures for concrete, mortar and grout — Test methods — Part 1: Reference concrete and reference mortar for testing*

EN 480-2, *Admixtures for concrete, mortar and grout — Test methods — Part 2: Determination of setting time*

EN 480-4, *Admixtures for concrete, mortar and grout — Test methods — Part 4: Determination of bleeding of concrete*

EN 480-5, *Admixtures for concrete, mortar and grout — Test methods — Part 5: Determination of capillary absorption*

EN 480-11, *Admixtures for concrete, mortar and grout — Test methods — Part 11: Determination of air void characteristics in hardened concrete*

prEN 480-15, *Admixtures for concrete, mortar and grout — Test methods — Part 15: Reference concrete and method for testing viscosity modifying admixtures*

EN 934-1:2008, *Admixtures for concrete, mortar and grout — Part 1: Common requirements*

EN 934-6:2001 *Admixtures for concrete, mortar and grout — Part 6: Sampling, conformity control and evaluation of conformity*

EN 12350-2, *Testing fresh concrete — Part 2: Slump test*

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

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

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

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