SLOVENSKI STANDARD
SIST EN 934-6:2019

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Nadomešča:
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Kemijski dodatki za beton, malto in injekcijsko maso - 6. del: Vzorčenje, ocenjevanje in preverjanje nespremenljivosti lastnosti

Admixtures for concrete, mortar and grout - Part 6: Sampling, assessment and verification of the constancy of performance

Zusatzmittel für Beton, Mörtel und Einpressmörtel - Teil 6: Probenahme, Bewertung und Überprüfung der Leistungsbeständigkeit

Adjuvants pour béton, mortier et coulis - Partie 6 : Échantillonnage, évaluation et vérification de la constance des performances

Ta slovenski standard je istoveten z: **EN 934-6:2019**

ICS:

91.100.10	Cement. Mavec. Apno. Malta	Cement. Gypsum. Lime. Mortar
91.100.30	Beton in betonski izdelki	Concrete and concrete products

SIST EN 934-6:2019 **en,fr,de**

EUROPEAN STANDARD
NORME EUROPÉENNE
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EN 934-6

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ICS 91.100.10; 91.100.30

Supersedes EN 934-6:2001

English Version

Admixtures for concrete, mortar and grout - Part 6: Sampling, assessment and verification of the constancy of performance

Adjuvants pour béton, mortier et coulis - Partie 6 : Échantillonnage, évaluation et vérification de la constance des performances

Zusatzmittel für Beton, Mörtel und Einpressmörtel - Teil 6: Probenahme, Bewertung und Überprüfung der Leistungsbeständigkeit

This European Standard was approved by CEN on 26 November 2018.

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

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

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European foreword

This document (EN 934-6:2019) 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 September 2019, and conflicting national standards shall be withdrawn at the latest by month year of September 2019.

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 934-6:2001.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

This document is cited in harmonized European Standards EN 934 parts 2, 3, 4 and 5. The technical content of this document has not been changed in this revision but in support of the harmonized European Standards in the EN 934 series, the terminology has been amended to align with the CEN guidance given for the drafting of all documents conforming to the requirements of the Construction Products Regulation EU 305/2011.

EN 934, *Admixtures for concrete, mortar and grout* is currently composed of the following parts:

— *Part 1: Common requirements*

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

— *Part 3: Admixtures for masonry mortar — Definitions, requirements, conformity and 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, assessment and verification of the constancy of performance*

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

1 Scope

This document specifies the procedures for sampling and for the assessment and verification of the constancy of performance (AVCP) for admixtures covered by the series EN 934.

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

EN 934-2, *Admixtures for concrete, mortar and grout - Part 2: Concrete admixtures - Definitions, requirements, conformity, marking and labelling*

EN 934-3, *Admixtures for concrete, mortar and grout - Part 3: Admixtures for masonry mortar - Definitions, requirements, conformity and marking and labelling*

EN 934-4, *Admixtures for concrete, mortar and grout - Part 4: Admixtures for grout for prestressing tendons - Definitions, requirements, conformity, marking and labelling*

EN 934-5, *Admixtures for concrete, mortar and grout - Part 5: Admixtures for sprayed concrete - Definitions, requirements, conformity, marking and labelling*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

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

3.1
batch
quantity of admixture which can be considered to have a uniform composition

Note 1 to entry: A tank load can be considered as the equivalent of a batch.

3.2
responsible person
person appointed by the manufacturer whose duties include implementation of all or a defined part of the production control manual

4 Sampling

4.1 General

Sampling of admixtures shall be carried out in such a way that the resulting sample is representative of the batch to be inspected.

The following procedures shall be used:

— for type testing and in case of dispute, 4.2;

— at time of delivery, 4.3;

— for factory production control, 4.4.

If required, sampling shall be carried out in the presence of all the parties concerned.

4.2 Sampling from the manufacturer's stock

4.2.1 General

Each sample shall represent not more than one batch. For continuous production of an admixture, one sample taken from up to 25 t may be regarded as representative.

4.2.2 Powder admixture (in packages)

The sample shall be composed of sub-samples from 6 packages (bags) or if the total number of packages (bags) is less than 6, from all packages (bags). The sub-samples are to be taken from packages (bags) distributed at random throughout the consignment.

One of the following procedures shall be applied:

a) where the packages contain up to 500 g, take all the contents of each package;

b) where the packages contain more than 500 g, use one of the following methods:

   1) insert a sampling tube, which takes a core not less than 25 mm in diameter, into the packages so that it takes a core of the material from substantially the entire length of the package;

   2) empty one of the packages to be sampled on to a clean dry surface and mix the material. Take at least three portions of not less than 125 g each from different parts of the heap.

The method given in 1) is the preferred method, but if a sampling tube is not available, the method given in 2) shall be used.

Repeat the procedure with each of the other packages to be sampled and thoroughly mix the sub-samples obtained to form one bulk sample. If the bulk sample exceeds 3 kg, it shall be reduced to 3 kg, either by coning and quartering or by use of a sample splitter.

Divide the sample into three equal parts and place each part in a clean, air tight, labelled container. At least one container holding 1 kg shall be kept for future reference. Store container(s) in a place that is protected from moisture, heat and light for one year or until the use-by date, whichever is the shorter period.

4.2.3 Liquid admixture

4.2.3.1 General

In order to achieve representative samples of liquid admixtures, one of the following procedures shall be applied.

4.2.3.2 Sampling of a liquid admixture from containers

The sample shall be composed of sub-samples taken from 6 containers or if the total number of containers is less than 6 from all containers. The sub-samples are to be taken from containers distributed at random throughout the consignment.

Agitate the admixtures in the containers to disperse all lightly settled material. Disregard all deposits which are not readily brought into suspension by such agitation.

Without delay, take sub-samples from the selected containers by one of the following procedures:

a) where containers hold up to 0,5 l, take the total contents;

b) where containers hold more than 0,5 l take 0,5 l of the liquid from each container, combine the sub-samples obtained in this way and mix them thoroughly to form one bulk sample.

4.2.3.3 Sampling of a liquid admixture from a tank load

When the load is agitated, one sample may represent the entire tank load of up to 25 000 l. The bulk sample shall be at least 3 l.

Otherwise, three samples shall be taken as follows: one from the top level, one within ± 300 mm of the mid-level of the fluid and one within 400 mm of the bottom of the tank. Each sample shall be not less than 1 l. Thoroughly mix the three samples until they form one homogeneous bulk sample.

4.2.3.4 Division of sample

The bulk sample obtained by one of the procedures described above (4.2.3.2 or 4.2.3.3) shall be divided into 3 equal samples. Place in three clean bottles, label and tightly stopper. At least one bottle shall be kept for future reference for one year or until the use-by date, whichever is the shorter period.

Store the bottle(s) in a place that is protected from heat, frost and light.

4.3 Sampling at delivery

When sampling of a consignment of an admixture is required, the sampling shall be carried out before unloading at the point and time of delivery.

4.4 Sampling for factory production control

Sampling procedures for factory production control shall be documented in the production control manual. The procedure shall ensure that a representative sample is obtained.

As a guide, at least one sample per batch or, in the case of continuous production, at not more than 25 t intervals. After testing, a sample of not less than 250 ml should be retained for at least one year or the shelf life of the product, if longer. If the normal admixture dosage exceeds 2 %, a larger sample should be retained.

4.5 Record

All information relevant to the sampling shall be recorded, in particular:

a) date of sampling;

b) name of the product;

c) type of admixture;

d) name of the manufacturer;

e) manufacturer's batch identification number;

f) quantity of batch represented by the sample;

g) physical state;

h) colour;

i) names of persons present and organizations represented during sampling.

5 Assessment and verification of consistency of performance - AVCP

5.1 General

The compliance of admixtures for concrete, mortar and grout with the requirements of the relevant parts of the series EN 934 and with the performances declared by the manufacturer in the DoP shall be demonstrated by:

— determination of the product type;

— factory production control by the manufacturer, including product assessment.

The manufacturer shall always retain the overall control and shall have the necessary means to take responsibility for the conformity of the product with its declared performance(s).

NOTE The assignment of tasks to the notified body(ies) and the manufacturer is shown in Annex ZA, Table ZA.3 in each of the series EN 934-2 to EN 934-5.

5.2 Conformity criteria

Composition and performance requirements and the related checks and test methods are given in the relevant parts of the series EN 934. When tested in accordance with these methods each result shall conform to the relevant requirement.

5.3 Type testing

Type testing shall be carried out to prove the conformity of the admixtures to the requirements of the relevant part of the series EN 934, in the following circumstances:

a) when a new formulation or type of admixture is produced;

b) when there is a change in formulation which may have significant effect on the performance of the admixture or which affects the manufacturer's stated values for the product as listed under general requirements in the relevant part of the EN 934 series;

c) when there is a change in the raw materials which may have a significant effect on the performance of the admixture or which affects the manufacturer's stated values for the product as listed under general requirements in the relevant part of the EN 934 series.