



**SLOVENSKI STANDARD**  
**SIST EN 480-8:1998**

**01-maj-1998**

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**Kemijski dodatki za beton, malto in injekcijsko maso - Metode preskušanja - 8. del:  
Določanje deleža suhe snov**

Admixtures for concrete, mortar and grout - Test methods - Part 8: Determination of the conventional dry material content

Zusatzmittel für Beton, Mörtel und Einpreßmörtel - Prüfverfahren - Teil 8: Bestimmung des Feststoffgehalts

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Adjuvants pour béton, mortier et coulis - Méthodes d'essai - Partie 8: Détermination de l'extrait sec conventionnel

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**Ta slovenski standard je istoveten z: EN 480-8:1996**

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**ICS:**

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

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**en**

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EUROPEAN STANDARD

EN 480-8

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 1996

ICS 91.100.10; 91.100.30

Descriptors: construction materials, concrete, mortars : material, grouting, concrete admixtures, chemical analysis, determination of content, dry matter

English version

### Admixtures for concrete, mortar and grout - Test methods - Part 8: Determination of the conventional dry material content

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Méthodes d'essai - Partie 8: Détermination de  
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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

## CEN

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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**Foreword**

This European Standard has been prepared by Technical Committee CEN/TC 104 "Concrete (performance, production, placing and compliance criteria)", 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 March 1997, and conflicting national standards shall be withdrawn at the latest by March 1997.

This standard is applicable together with the other standards of the series EN 480 for testing admixtures according to the series EN 934.

This Standard series EN 480 consists of the following parts:

Part 1: Reference concrete and reference mortar for testing

Part 2: Determination of setting time [SIST EN 480-8:1998](https://standards.iteh.ai/catalog/standards/sist/30c7328e-d6b8-41da-896b-b29b40602e07/sist-en-480-8-1998)

Part 4: Determination of bleeding of concrete <https://standards.iteh.ai/catalog/standards/sist/30c7328e-d6b8-41da-896b-b29b40602e07/sist-en-480-8-1998>

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

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

**1 Scope**

This European Standard describes a method for determining the conventional dry material content of an admixture.

**2 Normative references**

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

prEN 934-2 Admixtures for concrete, mortar and grout - Part 2: Concrete admixtures; Definitions, specifications and conformity criteria

### 3 Principle

A sample of admixture is dried in an oven at  $(105 \pm 3) ^\circ\text{C}$  for 4h.

In the case of a liquid admixture this method shall be used to characterize the dry material content.

For a powder admixture this method shall be used to determine the actual mass of the dried powder.

The method is not suitable for determining the absolute solids content.

### 4 Apparatus

a) Evaporating dish with a flat bottom ca. diameter 75 mm, depth 45 mm

b) Desiccator

c) Oven with forced ventilation <sup>1)</sup>, thermostatically controlled at  $(105 \pm 3) ^\circ\text{C}$ , fitted with a temperature indicating device. The required temperature range shall be maintained throughout the parts of the oven used for this test.

d) Balance, with an accuracy of 0,5 mg.

### 5 Procedure

The evaporating dish shall be heated for at least one hour in a drying oven at  $(105 \pm 3) ^\circ\text{C}$ . After cooling for 30 minutes in a desiccator the dish shall be weighed. This procedure shall then be repeated to check whether the mass of the dish is constant within a range of 0,001 g.

A mass (M) of approximately 2 g of a liquid admixture or approximately 1 g of a powder admixture shall be weighed into the dish with a precision of 0,001 g <sup>2)</sup>.

The sample shall then be placed in the drying oven which has been preheated to  $(105 \pm 3) ^\circ\text{C}$ . It shall be kept in the oven for 4h at a temperature of  $(105 \pm 3) ^\circ\text{C}$ , and immediately thereafter cooled down in a desiccator <sup>3)</sup>.

It shall then be weighed with a precision of 0,001 g, and the mass of the residue recorded as R.

The test shall be carried out twice.

### 6 Results

The following formula shall be used to calculate the results:

$$\text{Dry material content } X = \frac{R}{M} \times 100 \%$$

where R mass of the residue in grams  
M mass of admixture in grams  
X dry material content by mass in percent

For an average dry material content not exceeding 20 % or less the difference between the two results shall not exceed average dry material content multiplied by 0,04. For an average dry material content  $> 20 \%$  the difference between the two results shall not exceed 0,80 % by mass.

If these differences are exceeded duplicate tests shall be repeated until the results agree within the maximum permitted difference.

1) Fan circulation is necessary to ensure uniform temperature throughout the oven.

2) In order to obtain reproducible results it is essential that the mass of the dried residue or of the dried powder will be large enough in relation to the dimensions and mass of the evaporating dish and the mass of the sample.

3) If a liquid admixture cannot be dried by the method described, an alternative method should be used (see prEN 934-2).

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## 7 Test report

The dry material content of the sample shall be reported as the mean of the duplicate test results to 0,1 % by mass.

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