



**SLOVENSKI STANDARD**  
**oSIST prEN 480-6:2023**  
**01-marec-2023**

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**Kemijski dodatki za beton, malto in injekcijsko maso - Preskusne metode - 6. del:  
Infrardeča analiza**

Admixtures for concrete, mortar and grout - Test methods - Part 6: Infrared analysis

Zusatzmittel für Beton, Mörtel und Einpressmörtel - Prüfverfahren - Teil 6: Infrarot-  
Untersuchung

Adjuvants pour béton, mortier et coulis - Méthodes d'essai - Partie 6 : Analyse infrarouge

**Ta slovenski standard je istoveten z: prEN 480-6**

**ICS:**

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

**oSIST prEN 480-6:2023**

**en,fr,de**



EUROPEAN STANDARD  
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**DRAFT**  
**prEN 480-6**

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ICS 91.100.10; 91.100.30

Will supersede EN 480-6:2005

English Version

## Admixtures for concrete, mortar and grout - Test methods - Part 6: Infrared analysis

Adjuvants pour béton, mortier et coulis - Méthodes  
d'essai - Partie 6: Analyse infrarouge

Zusatzmittel für Beton, Mörtel und Einpressmörtel -  
Prüfverfahren - Teil 6: Infrarot-Untersuchung

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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## European foreword

This document (prEN 480-6:2023) has been prepared by Technical Committee CEN/TC 104 “Concrete and related products”, the secretariat of which is held by SN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 480-6:2005.

This document 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: 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 applicable together with the other standards of the EN 480 series.

The main changes compared to the previous edition EN 480-6:2005 are as follows:

- a) the ATR-technique (Attenuated Total Reflectance) was added as permissible sampling technique, see 4.1;
- b) editorial changes.

**prEN 480-6:2023 (E)****1 Scope**

This document specifies a method for identifying an admixture by infrared analysis (IR).

**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 480-8, *Admixtures for concrete, mortar and grout — Test methods — Part 8: Determination of the conventional dry material content*

**3 Terms and definitions**

No terms and definitions are listed in this document.

ISO and IEC maintain terminological 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/>

**4 Principle**

The IR analysis is performed on dry material from an admixture dried at  $(105 \pm 3)$  °C, unless a different temperature is stated by the manufacturer.

The residue from the determination of the conventional dry material content according to EN 480-8 may be used.

**5 Apparatus**

**5.1 Infrared spectrometer with accessories** (cells, pelleting press, NaCl windows, ATR [Attenuated Total Reflectance], etc.).

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

**5.3 Desiccator.**

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

**5.5 Balance with an accuracy of 0,5 g.**

**6 Procedure****6.1 Preparation of the dry material**

The method given in EN 480-8 shall be used<sup>2</sup>.

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<sup>1</sup> Fan circulation is necessary to ensure uniform temperature throughout the oven.

<sup>2</sup> Any water in the dry extract will affect the resulting IR spectrum. If this occurs, the period of drying should be extended to remove all water but not to cause breakdown or evaporation of other constituents.