Betooni, mördi ja süstmördi lisandid. Teimimismeetodid. Osa 8: Tavapärase kuivaine sisalduse määramine

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

EESTI STANDARDIKESKUS
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NATIONAL FOREWORD

See Eesti standard EVS-EN 480-8:2012 sisaldab Euroopa standardi EN 480-8:2012 ingliskeelset teksti.	This Estonian standard EVS-EN 480-8:2012 consists of the English text of the European standard EN 480-8:2012.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 16.05.2012.	Date of Availability of the European standard is 16.05.2012.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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EUROPEAN STANDARD

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English Version

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

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

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

This European Standard was approved by CEN on 13 April 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.

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Foreword

This document (EN 480-8:2012) 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 November 2012, and conflicting national standards shall be withdrawn at the latest by November 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 EN 480-8:1996.

This draft European Standard 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*[1)]

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

In this revision drying the test specimen for a fixed period has been replaced by drying to constant weight.

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) In preparation.

Introduction

The procedure in EN 480-8:1996 has been found to be unreliable for some types of admixture such as lignosulfonates and sugars. The procedure has now been revised to include drying to constant weight using duplicate specimens with a requirement for maximum difference between results.

Some materials used in admixtures are deliquescent so the option of using a bottle with a stopper to be inserted during weighing is included.

Some liquid admixtures form a skin during drying which prevents complete drying. In these circumstances EN 934-1 permits an alternative test procedure to be used.

1 Scope

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

2 Principle

A sample of admixture is dried in an oven at (105 ± 3) °C until a constant weight is reached.

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.

NOTE This method is not suitable for determining the absolute solids content.

3 Apparatus

3.1 Weighing bottle, squat form, wide-mouthed with ground glass stopper or evaporating basin with a flat bottom and approximately 75 mm diameter × 45 mm depth.

3.2 Desiccator, containing an efficient desiccant.

3.3 Drying Oven with forced ventilation, thermostatically controlled at (105 ± 3) °C, fitted with a temperature indicating device.

The required temperature range shall be maintained throughout all parts of the oven used for this test.

NOTE Forced ventilation is necessary to ensure uniform temperature throughout the oven.

3.4 Balance, with a resolution of 0,5 mg.

4 Procedure

Heat the weighing bottle with the stopper removed, or the evaporating basin, for at least one hour in a drying oven at (105 ± 3) °C. After cooling for 30 min in a desiccator weigh the weighing bottle with stopper inserted, or the evaporating basin. Repeat this procedure until the mass of the vessel is constant within a range of 1 mg.

Spread (2,0 ± 0,2) g of the sample in a uniform layer on the bottom of the vessel and weigh to the nearest 1 mg).

NOTE 1 In order to obtain reproducible results it is essential that the mass of the dried residue or of the dried powder will be significant in relation to the mass of the vessel and the mass of the sample.

Heat the weighing bottle and contents and the stopper with stopper removed, or the evaporating basin and contents, in the oven at (105 ± 3) °C for a minimum of 1 h. Insert the stopper and transfer the weighing bottle, or evaporating basin, to the desiccator. Allow to cool in the desiccator with the stopper removed. Insert the stopper and weigh the weighing bottle, or evaporating basin, to the nearest 1 mg. Repeat the heating for at least 30 min, allow to cool in the desiccator and again weigh to the nearest 1 mg. Repeat the heating and cooling until two successive weighings differ by no more than 2 mg. Record the lower mass.

Repeat the weighing and drying procedure using a fresh specimen from the same sample in order to obtain duplicate results.