



SLOVENSKI STANDARD
SIST EN 196-3:2005/oprA1:2008

01-september-2008

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cVgHc'bcgH]

Methods of testing cement - Part 3: Determination of setting times and soundness

Prüfverfahren für Zement - Teil 3: Bestimmung der Erstarrungszeiten und der Raumbeständigkeit

(standards.iteh.ai)

Méthodes d'essais des ciments - Partie 3: Détermination du temps de prise et de la stabilité

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Ta slovenski standard je istoveten z: EN 196-3:2005/prA1

ICS:

91.100.10 Cement. Mavec. Apno. Malta Cement. Gypsum. Lime.
Mortar

SIST EN 196-3:2005/oprA1:2008

en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

FINAL DRAFT
EN 196-3:2005

prA1

May 2008

ICS 91.100.10

English Version

Methods of testing cement - Part 3: Determination of setting times and soundness

Méthodes d'essais des ciments - Partie 3: Détermination du temps de prise et de la stabilité

Prüfverfahren für Zement - Teil 3: Bestimmung der Erstarrungszeiten und der Raumbeständigkeit

This draft amendment is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 51.

This draft amendment A1, if approved, will modify the European Standard EN 196-3:2005. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment 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 Management Centre has the same status as the official versions.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

EN 196-3:2005/prA1:2008 (E)

Foreword

This document (EN 196-3:2005/prA1:2008) has been prepared by Technical Committee CEN/TC 51 “Cement and building limes”, the secretariat of which is held by NBN.

This document is currently submitted to the Unique Acceptance Procedure.

This Amendment extends EN 196-3:2005 to include an alternative method for testing the setting times of slow setting cements. The remaining technical content of EN 196-3:2005 has not been changed.

The numbering of the clauses refers to EN 196-3:2005.

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1 Modification to the Foreword

Add as 4th paragraph the following:

"Amendment A1:2007 contains an alternative method for testing the setting times of slow setting cements."

2 Modification to 4.1, Laboratory

Add the following note between the 3^d and 4th paragraphs:

"NOTE See Annex A for storage conditions to be applied when testing setting times by alternative method."

3 Modification to 6.1.1

Amend:

"NOTE" to "NOTE 1".

Add the following note 2:

"NOTE 2 Experience has shown that the reference method, in which the specimens are tested under water, is not suitable for some slow setting cements. An alternative method of test is set out in Annex A. The specifications for cements and other products will state when this alternative method is to be used."

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EN 196-3:2005/prA1:2008 (E)

4 Addition of Annex A

Insert the following new Annex A:

"

Annex A (informative)

Alternative method for setting time tests

A.1 Test principle

The equipment used and the specimen preparation procedures are as described in Clause 6 but with the additional requirement for a room or a humidity cabinet of adequate size and maintained at $(20 \pm 1) ^\circ\text{C}$ and not less than 90 % relative humidity.

NOTE The specifications for cements and other products will state when this alternative method is to be used.

A.2 Initial setting time procedure

Calibrate the Vicat apparatus with the needle, attached in advance of the test, by lowering the needle to rest on the base-plate and adjusting the pointer to read zero on the scale. Raise the needle to the stand-by position. Fill a Vicat mould in accordance with 5.2.2 with paste of standard consistence mixed in accordance with 5.2.1.

Place the filled mould and base-plate in the room or humidity cabinet and after a suitable time, position the mould, base-plate and container under the needle of the Vicat apparatus. Lower the needle gently until it is in contact with the paste. Pause in that position for between 1 s and 2 s in order to avoid initial velocity or forced acceleration of the moving parts. Then release the moving parts quickly and allow the needle to penetrate vertically into the paste. Read the scale when penetration has ceased, or 30 s after the release of the needle, whichever is the earlier.

Record the scale reading, which indicates the distance between the end of the needle and the base-plate, together with the time from zero. Repeat the penetration on the same specimen at conveniently spaced positions, not less than 8 mm from the rim of the mould or 5 mm from each other and at least 10 mm from the last penetration position, at conveniently spaced intervals of time, e.g. at 10 min intervals. Between penetrations keep the specimen in a room or humidity cabinet. Clean the Vicat needle immediately after each penetration. Retain the specimen if determination of the final setting time is to be made.

A.3 Report — initial setting time

Report the time measured from zero at which the distance between the needle and the base-plate is (6 ± 3) mm as the initial setting time of the cement to the nearest 5 min.

A.4 Final setting time procedure

Invert the filled mould and follow the procedure described in 6.3 with the specimen held in the room or humidity cabinet at controlled humidity.

A.5 Report — final setting time

Report the time measured from zero at which the needle first penetrates only 0,5 mm into the specimen as the final setting time of the cement, to the nearest 15 min."