
Metode preskušanja cementa - 10. del: Določevanje vodotopnega kroma (VI) v cementu

Methods of testing cement - Part 10: Determination of the water-soluble chromium (VI) content of cement

Prüfverfahren für Zement - Teil 10: Bestimmung des Gehaltes an wasserlöslichem Chrom (VI) in Zement

Méthodes d'essais des ciments - Partie 10 : Détermination de la teneur en chrome (VI) soluble dans l'eau des ciments

Ta slovenski standard je istoveten z: prEN 196-10

[oSIST prEN 196-10:2025](https://standards.iteh.ai/catalog/standards/sist/131c0c11-1d8a-4ff2-b060-741d15aa672d/osist-pr-en-196-10-2025)

<https://standards.iteh.ai/catalog/standards/sist/131c0c11-1d8a-4ff2-b060-741d15aa672d/osist-pr-en-196-10-2025>

ICS:

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

oSIST prEN 196-10:2025

en,fr,de

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 196-10

October 2025

ICS 91.100.10

Will supersede EN 196-10:2016

English Version

Methods of testing cement - Part 10: Determination of the water-soluble chromium (VI) content of cement

Méthodes d'essais des ciments - Partie 10 :
Détermination de la teneur en chrome (VI) soluble
dans l'eau des ciments

Prüfverfahren für Zement - Teil 10: Bestimmung des
Gehaltes an wasserlöslichem Chrom (VI) in Zement

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 51.

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.

CEN members are the national standards bodies of 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.

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.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

Page

European foreword	4
Introduction	5
1 Scope.....	7
2 Normative references.....	7
3 Terms and definitions	7
4 General requirements for testing	8
4.1 Number of tests.....	8
4.2 Repeatability and reproducibility	8
4.3 Expression of masses, volumes, factors and results.....	9
4.4 Blank determinations	9
5 Reagents.....	9
6 Apparatus	10
7 Preparation of a test sample of cement	11
8 Extraction procedure	12
8.1 Principle	12
8.2 Preparation of mortar	12
8.2.1 Composition of mortar.....	12
8.2.2 Mixing of mortar.....	12
8.3 Filtration	12
9 Determination of chromium (VI) by colorimetric determination by diphenylcarbazide in acidic conditions (reference methods).....	13
9.1 General.....	13
9.2 Measurement of absorbance without oxidation.....	13
9.2.1 Construction of the calibration curve.....	13
9.2.2 Sample absorbance	14
9.2.3 Determination of chromium (VI) concentration	14
9.3 Measurement of absorbance with oxidation	14
9.3.1 Construction of the calibration curve.....	14
9.3.2 Sample absorbance with oxidation	14
9.3.3 Determination of chromium (VI) concentration	14
10 Calculation and expression of results	15
10.1 Calculation.....	15
10.2 Expression of results	15
11 Reporting of results	15
12 Repeatability and reproducibility	15
13 Determination of total water-soluble chromium by inductively coupled plasma optical emission spectroscopy, ICP-OES)	15
13.1 Principle.....	15
13.2 Reagents and materials	16
13.3 Apparatus	16

13.3.1	Inductively coupled plasma optical emission spectrometer	16
13.3.2	Automatic sample changer	17
13.4	Extraction procedure	17
13.4.1	Principle	17
13.4.2	Preparation of mortar	17
13.4.3	Composition of mortar	17
13.4.4	Mixing of mortar	17
13.5	Filtration	17
13.6	Sample preparation	17
13.7	Calibration	17
14	Measuring	17
15	Test procedure	17
16	Expression of results	18
17	Reporting of results	18
18	Repeatability and reproducibility	18
Annex A (informative)	Guidance on the determination of the water-soluble chromium (VI) content of cement-containing preparations	19
Annex B (informative)	Guidance on screening test method (1) using paste extraction - method based on DS 1020:1984	21
Annex C (informative)	Guidance on screening test method (2) using paste extraction - method based on TRGS 613	24
Annex D (informative)	Guidance on the photometric determination of chromium reduction capacity in cements	28
Annex E (informative)	Preparation of standard calibration solution	32
Bibliography		34

oSIST prEN 196-10:2025

<https://standards.iteh.ai/catalog/standards/sist/151c0c11-1d8a-4f12-b060-741d15aa672d/osist-pren-196-10-2025>