

SLOVENSKI STANDARD

SIST EN 197-1:2001/A3:2008

01-marec-2008

7 Ya Ybh! "%XY. 'GYghUj UŽnU Hŷj Y]b'a Yf] Ug_`UXbcgh]nUcV] U'bY'WwY Ybh'!
8 cdc`b]c`5'

Cement - Part 1: Composition, specifications and conformity criteria for common cements

Zement - Teil 1: Zusammensetzung, Anforderungen und Konformitätskriterien von Normalzement

Ciment - Partie 1: Composition, spécifications et critères de conformité des ciments courants

Ta slovenski standard je istoveten z: **EN 197-1:2000/A3:2007**

ICS:

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

SIST EN 197-1:2001/A3:2008

en,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 197-1:2000/A3

July 2007

ICS 91.100.10

English Version

**Cement - Part 1: Composition, specifications and conformity
criteria for common cements**

Ciment - Partie 1: Composition, spécifications et critères de
conformité des ciments courants

Zement - Teil 1: Zusammensetzung, Anforderungen und
Konformitätskriterien von Normalzement

This amendment A3 modifies the European Standard EN 197-1:2000; it was approved by CEN on 26 May 2007.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

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

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, 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 and United Kingdom.

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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 197-1:2000/A3:2007 (E)**Foreword**

This document (EN 197-1:2000/A3:2007) has been prepared by Technical Committee CEN/TC 51 “Cement and building limes”, the secretariat of which is held by NBN.

This Amendment to the European Standard EN 197-1:2000 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2008, and conflicting national standards shall be withdrawn at the latest by January 2008.

This Amendment extends the European Standard EN 197-1:2000 for common cement to cover the modified requirements for fly ash as a cement constituent. The remaining technical content of EN 197-1:2000 has not been changed.

The numbering of the clauses refers to EN 197-1:2000.

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, 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 and United Kingdom.

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Amendment 3

Foreword

Add:

4th paragraph:

Amendment A3:2007 contains the modified requirements for fly ash as a cement constituent.

5 Constituents

5.2.4 Fly ashes (V, W)

5.2.4.1 General

Add (1st paragraph, modification is underlined):

(1) Fly ash is obtained by electrostatic or mechanical precipitation of dust-like particles from the flue gases from furnaces fired with pulverised coal.

NOTE 1 For definition of fly ash see EN 450-1.

Ash obtained by other methods shall not be used in cement that conforms to EN 197-1.

Add (2nd paragraph, modification is underlined):

(2) Fly ash may be siliceous or calcareous in nature. The former has pozzolanic properties; the latter may have, in addition, hydraulic properties. The loss on ignition of fly ash determined in accordance with EN 196-2, but using an ignition time of 1 h, shall be within one of the following limits

- a) 0 % to 5,0 % by mass
- b) 2,0 % to 7,0 % by mass
- c) 4,0 % to 9,0 % by mass

The upper limit of loss on ignition of the fly ash used as a main constituent for the production of cement as main constituent shall be stated on its packaging and/or delivery note.

Add (3rd paragraph, modification is underlined):

(3) The use of fly ash with loss on ignition up to 7,0 % or up to 9,0 % by mass is permitted provided that particular requirements for durability, especially frost resistance, and for compatibility with admixtures are met according to the appropriate standards and/or regulations for concrete or mortar in the place of use.

NOTE 2 The purpose of the requirement for the loss on ignition is to limit the residue of unburnt carbon in the fly ash. It is sufficient, therefore, to show, through direct measurement of unburnt carbon residue, that the content of unburnt carbon falls within the limits specified above. The content of unburnt carbon is determined in accordance with ISO 10694.

Annex ZA (informative)

ZA.4 CE conformity marking

ZA.4.1 Bagged cement

Add (modifications underlined>:

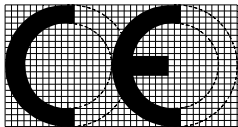
 <p>0123</p>	<p>CE conformity marking, consisting of the “CE”-symbol given in Directive 93/68/EEC</p> <p>Identification number of the certification body</p>
<p>Any Company</p> <p>The registered address</p>	<p>Name or identifying mark of the producer</p> <p>Registered address of the producer</p>
<p>Any Factory ⁴⁾</p>	<p>Name or identifying mark of the factory where the cement was produced ⁴⁾</p>
<p>Year 07 (or position of date stamping)</p>	<p>The last two digits of the year in which the marking was affixed ⁵⁾</p>
<p>0123-CPD-0456</p>	<p>Number of the EC certificate of conformity</p>
<p>EN 197-1</p>	<p>Number of European standard</p>
<p>CEM I 42,5R</p> <p>Additional information</p>	<p>Example of standard designation, indicating the cement product and the strength class as specified in Clause 8 of EN 197-1:2000</p> <p>Limit for chloride, in % ⁶⁾</p> <p><u>Upper</u> limit for loss on ignition of fly ash, in % ⁷⁾</p> <p>Standard notation of admixture ⁸⁾</p>

Figure ZA.1 – Example of CE marking information

4) Considered necessary for the requirements of EN 197-2 but not compulsory.

5) The year of marking should relate to either the time of packing into bags or the time of dispatch from the factory or depot.

6) Only where the common cement is produced to meet a different chloride content limit to the value specified in Table 3 of EN 197-1:2000.

7) Only where, in accordance with 5.2.4.1 of EN 197-1:2000, fly ash is used as a main constituent.

8) Only where, in accordance with 5.5 of EN 197-1:2000, an admixture conforming to the EN 934 series is used.

Add the following Bibliography:

Bibliography

- [1] EN 450-1, *Fly ash for concrete – Part 1: Definition, specifications and conformity criteria*
- [2] ISO 10694, *Soil quality – Determination of organic and total carbon after dry combustion (elementary analysis)*

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