



MALAYSIAN STANDARD

MS EN 197-2:2007

Cement - Part 2: Conformity evaluation

ICS: 91.100.10

Descriptors: cement, conformity, evaluation

FOR SALE WITHIN MALAYSIA ONLY

© Copyright 2007

DEPARTMENT OF STANDARDS MALAYSIA

DEVELOPMENT OF MALAYSIAN STANDARDS

The **Department of Standards Malaysia (STANDARDS MALAYSIA)** is the national standards and accreditation body of Malaysia.

The main function of STANDARDS MALAYSIA is to foster and promote standards, standardisation and accreditation as a means of advancing the national economy, promoting industrial efficiency and development, benefiting the health and safety of the public, protecting the consumers, facilitating domestic and international trade and furthering international cooperation in relation to standards and standardisation.

Malaysian Standards (MS) are developed through consensus by committees which comprise balanced representation of producers, users, consumers and others with relevant interests, as may be appropriate to the subject at hand. To the greatest extent possible, Malaysian Standards are aligned to or are adoption of international standards. Approval of a standard as a Malaysian Standard is governed by the Standards of Malaysia Act 1996 [Act 549]. Malaysian Standards are reviewed periodically. The use of Malaysian Standards is voluntary except in so far as they are made mandatory by regulatory authorities by means of regulations, local by-laws or any other similar ways.

STANDARDS MALAYSIA has appointed **SIRIM Berhad** as the agent to develop, distribute and sell the Malaysian Standards.

For further information on Malaysian Standards, please contact:

Department of Standards Malaysia
Ministry of Science, Technology and Innovation
Level 1 & 2, Block 2300, Century Square
Jalan Usahawan
63000 Cyberjaya
Selangor Darul Ehsan
MALAYSIA

OR

SIRIM Berhad
(Company No. 367474 - V)
1, Persiaran Dato' Menteri
Section 2, P.O.Box 7035
40700 Shah Alam
Selangor Darul Ehsan
MALAYSIA

Tel: 60 3 8318 0002
Fax: 60 3 8319 3131
<http://www.standardsmalaysia.gov.my>

Tel: 60 3 5544 6000
Fax: 60 3 5510 8095
<http://www.sirim.my>

E-mail: central@standardsmalaysia.gov.my

E-mail: msonline@sirim.my

Committee representation

The Industry Standards Committee on Building, Construction and Civil Engineering (ISC D) under whose authority this Malaysian Standard was adopted, comprises representatives from the following organisations:

Association of Consulting Engineers Malaysia
Chartered Institute of Building Malaysia
Construction Industry Development Board Malaysia
Department of Standards Malaysia
Jabatan Bomba dan Penyelamat Malaysia
Jabatan Kerja Raya Malaysia
Jabatan Pengairan dan Saliran
Jabatan Perumahan Negara
Malaysian Timber Industry Board
Master Builders Association Malaysia
Ministry of International Trade and Industry
Pertubuhan Akitek Malaysia
SIRIM Berhad (Secretariat)
Suruhanjaya Tenaga
The Institution of Engineers, Malaysia
Universiti Teknologi Malaysia

The Technical Committee on Cement which supervised the adoption of the EN Standard was managed by The Cement and Concrete Association of Malaysia in its capacity as an authorised Standards-Writing Organisation and consists of representatives from the following organisations:

Associated Pan Malaysia Cement Sdn Bhd
Cement Industries of Malaysia Berhad
CMS Cement Sdn Bhd
Construction Industry Development Board Malaysia
IKRAM QA Services Sdn Bhd
Malayan Cement Industries Sdn Bhd
Master Builders Association Malaysia
National Ready Mixed Concrete Association
Negeri Sembilan Cement Industries Sdn Bhd
Pahang Cement Sdn Bhd
Perak-Hanjoong Simen Sdn Bhd
SIRIM Berhad
SIRIM QAS International Sdn Bhd
Tasek Corporation Berhad
The Cement and Concrete Association of Malaysia (Secretariat)
The Institution of Engineers, Malaysia
Universiti Kebangsaan Malaysia
Universiti Malaya
Universiti Teknologi Malaysia

The Working Group on EN 197-2 which recommended the adoption of the EN Standard consists of representatives from the following organisations:

Associated Pan Malaysia Cement Sdn Bhd
Cement Industries of Malaysia Berhad
CMS Cement Sdn Bhd
Master Builders Association Malaysia
National Ready Mixed Concrete Association
Negeri Sembilan Cement Industries Sdn Bhd
Perak-Hanjoong Simen Sdn Bhd
SIRIM Berhad
SIRIM QAS International Sdn Bhd
Tasek Corporation Berhad
The Cement and Concrete Association of Malaysia (Secretariat)
The Institution of Engineers, Malaysia

MS EN 197-2:2007

FOREWORD

The adoption of the EN Standard as a Malaysian Standard was recommended by the Working Group on EN 197-2 under the authority of the Industry Standards Committee on Building, Construction and Civil Engineering. Development of this standard was carried out by The Cement and Concrete Association of Malaysia which is the Standards Writing Organisation appointed by SIRIM Berhad to develop standards for cement.

This Malaysian Standard does not include in its scope:

- a) the additional special properties of low heat Portland cement, conformance to BS 1370 or of sulfate-resisting Portland cement, conformance to MS 1037; and
- b) other types of cement whose hardening is not primarily due to the hydration of calcium silicates, i.e. high alumina cement, conformance to BS 915-2.

It is intended that cements from within this range will be specified in further parts of MS EN 197 and MS EN 196 or in other standards.

This Malaysian Standard is identical with EN 197-2:2000, *Cement - Part 2: Conformity evaluation*, published by the European Committee for Standardisation (CEN) with the exceptions as listed below.

MALYSIAN STANDARD EXCEPTION

- a) in the source text "this European Standard" should read "this Malaysian Standard";
- b) the comma which is used as a decimal sign (if any), to read as a point; and
- c) reference to EN Standards should be replaced by corresponding Malaysian Standards as follows:

<u>Reference EN Standards</u>	<u>Corresponding Malaysian Standards</u>
EN 197-1, <i>Cement - Part 2: Composition, specifications and conformity criteria for common cements</i>	MS EN 197-1, <i>Cement - Part 1: Composition, specifications and conformity criteria for common cements</i>
EN 196-1, <i>Methods of testing cement - Part 1: Determination of strength</i>	MS EN 196-1, <i>Methods of testing cement - Part 1: Determination of strength</i>
EN 196-2, <i>Methods of testing cement - Part 2: Chemical analysis of cement</i>	MS EN 196-2, <i>Methods of testing cement - Part 2: Chemical analysis of cement</i>

FOREWORD (continued)

EN 196-3, <i>Methods of testing cement - Part 3: Methods of testing cement - Determination of setting time and soundness</i>	MS EN 196-3, <i>Methods of testing cement - Part 3: Methods of testing cement - Determination of setting time and soundness</i>
EN 196-5, <i>Methods of testing cement - Part 5: Pozzolanicity test for pozzolanic</i>	MS EN 196-5, <i>Methods of testing cement - Part 5: Pozzolanicity test for pozzolanic</i>
EN 196-6, <i>Methods of testing cement - Part 6: Determination of fineness</i>	MS EN 196-6, <i>Methods of testing cement - Part 6: Determination of fineness</i>
EN 196-7, <i>Methods of testing cement - Part 7: Methods of taking and preparing samples of cement</i>	MS EN 196-7, <i>Methods of testing cement - Part 7: Methods of taking and preparing samples of cement</i>
EN 196-8, <i>Methods of testing cement - Part 8: Heat of hydration - Solution method</i>	MS EN 196-8, <i>Methods of testing cement - Part 8: Heat of hydration - Solution method</i>
EN 196-9, <i>Methods of testing cement - Part 9: Heat of hydration - Semi-adaibatic method</i>	MS EN 196-9, <i>Methods of testing cement - Part 9: Heat of hydration - Semi-adaibatic method</i>

This MS EN 197 consists of the following parts under the general title *Cement*:

Part 1: Composition, specifications and conformity criteria

Part 2: Conformity evaluation

This standard cancels and replaces the following Malaysian Standards:

MS 522: Part 1: 2003, *Portland cement (Ordinary and rapid hardening) Part 1- Specification*

MS 522: Part 2:2005, *Portland cement (Ordinary and rapid hardening) Part 2 - Physical test*

MS 522: Part 3:2005, *Portland cement (Ordinary and rapid hardening) Part 3 - Chemical analysis*

MS 522: Part 4:2005, *Portland cement (Ordinary and rapid hardening) Part 4 - Spectro-photometric and X-ray fluorescence analysis*

MS 1388:1995, *Specification for high blastfurnace cement*

MS 1389:1995, *Specification for Portland blastfurnace cement*

MS 1520: 2001, *Specification for pozzolanic pulverized-fuel ash cement*

MS EN 197-2:2007

FOREWORD *(concluded)*

MS 1227:2003, *Specification for Portland pulverized-fuel ash cement*

This standard is published with the permission of the European Committee for standardization. Such permission is hereby acknowledged.

Compliance with a Malaysian Standard does not of itself confer immunity from legal obligations.