

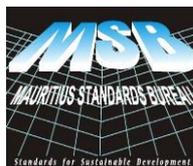
MAURITIAN
STANDARD

MS 36-3:2020

Second edition
2020-09-19

**Cement – Part 3: Cement for tropical use -
Composition, specifications and conformity
criteria**

ICS 91.100.10



**Mauritius Standards Bureau
Moka**

Foreword

This Mauritian Standard was drawn up by the **Building and Construction Standards Committee** through its **Subcommittee on Cements** and approved by the **Standards Council** on **21 August 2020**. It was notified in the Government Gazette on **19 September 2020**.

This edition cancels and replaces MS 36 -3:2007 which has technically been revised.

This Mauritian Standard has been based on the French Standard **NF P15-302:2007, Ciments à usage tropical – Composition, specifications et critère de conformité**.

The following Mauritian Standard is identical to the European Standard, which is referenced in the adopted standard:

European Standard	Corresponding Mauritian Standard
EN 197-1	MS EN 197-1:2011, <i>Cement – Part 1: Composition, specifications and conformity criteria for common cements</i>

Acknowledgement

MSB wishes to acknowledge the valuable assistance derived from the following publication.

- ETA-13/0497, European Technical Approval – Portland pozzolanic cement for use in tropical conditions.

* **General Notice No. 1297 of 2020**



COPYRIGHT PROTECTED DOCUMENT

© MSB 2020

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without permission in writing from Mauritius Standards Bureau at the address below

Mauritius Standards Bureau
Villa Road
Moka
Mauritius

Telephone + (230) 433 3648
Fax + (230) 433 5051/ 433 5150
E-mail msb@intnet.mu

Introduction	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions.....	1
4 Constituents	2
4.1 Constituents defined in Clause 5 of MS EN 197-1.....	2
4.2 Pozzolanic fillers (Z).....	2
4.3 Reactive Silicon Dioxide Content.....	2
5 Types of cement, composition and notation	3
5.1 Types of cement	3
5.2 Composition	3
5.3 Standard designation	3
6 Mechanical requirements	3
7 Physical and chemical requirements.....	4
8 Conformity criteria	4
8.1 General.....	4
8.2 Conformity criteria for cement composition	4

Introduction

The common cements defined in MS EN 197-1 can be used in the intertropical zone. Nevertheless, the realization of work in this region can justify, because of the climate, the use of cements having, compared to cements conforming to MS EN 197-1, lower resistances or slower resistance development, under the test conditions of EN 196-1.

The manufacture of such cements from a reactive Portland clinker may require the use of another constituent intended to optimize the development of the resistances and the heat of hydration, for example the pozzolanic filler

Cements for use in tropical conditions are products that are not covered by the Mauritian standard MS EN 197-1.

These cements comply with the specifications of the standard MS EN 197-1 except that the pozzolanic filler has a reactive silica content of less than 25% by mass, which is very common in the tropical regions. When finely ground, these materials display pozzolanic properties close to those of the natural pozzolanas described in the 5.2.3. of the standard MS EN 197-1.

However, the realization of works in this zone may justify, because of the climate, the use of cements having, compared to standard NF EN 197-1, lower resistances, or a slower resistance development, under the tests conditions of the standard NF EN 196

Composition, specifications and conformity criteria for cements for tropical use

1 Scope

This Mauritian Standard, complementary to MS EN 197-1, gives the composition, specifications and conformity criteria for cements intended to be used only in intertropical regions. These cements differ from common cements conforming to MS EN 197-1 by their composition.

This Mauritian Standard allows the use of pozzolanic filler with a reactive silicon dioxide content less than 25.0 % by mass in the cement. The main type of cement for tropical use covered in this standard is CEM II Portland-composite cement.

NOTE: In addition to the specified requirements, an exchange between the producer and the user of cement, of additional information may be useful. The procedures for such an exchange are outside the scope of this document; they are the subject of an agreement between the parties concerned.

This Mauritian Standard does not cover:

- **very low heat special cement covered by EN 14216;**
- **supersulfated cement covered by EN 15743;**
- **calcium aluminate cement covered by EN 14647;**
- **masonry cement covered by MS EN 413-1.**

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest document of the referenced document (including any amendments) applies.

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 197-1	<i>Cement - Part 1: Composition, specifications and conformity criteria for common cements</i>

3 Terms and definitions

For the purposes of this document, the definitions given in MS EN 197-1 and the following apply.

3.1

cement for tropical use

the definition of cement given in Clause 4 of MS EN 197-1 applies to cement for tropical use.