

see also 23497 1982  
23505

AS 1315—1973  
UDC 666.942

# Australian Standard 1315—1973

---

## PORTLAND CEMENT

METRIC UNITS



**STANDARDS ASSOCIATION OF AUSTRALIA**  
*Incorporated by Royal Charter*

**THE FOLLOWING SCIENTIFIC, INDUSTRIAL AND GOVERNMENTAL ORGANIZATIONS and departments were officially represented on the committee entrusted with the preparation of this standard:**

**Associated Chambers of Manufactures of Australia  
Association of Consulting Engineers, Australia  
Australian and New Zealand Railways Conferences  
Cement and Concrete Association of Australia  
Commonwealth and State Departments of Works  
CSIRO Division of Building Research  
Electricity Supply Authorities  
Housing Authorities  
Manufacturers of Blended Cement  
Maritime Services Board of N.S.W.  
National Association of Australian State Road Authorities  
National Ready Mixed Concrete Association  
Royal Australian Chemical Institute  
Royal Australian Institute of Architects  
The Institution of Engineers, Australia  
Universities  
Water Conservation, Water Supply and Hydro-electric Authorities**

---

**This standard, prepared by Committee BD/10, Cement, was approved on behalf of the Council of the Standards Association of Australia on 23 November 1972.**

**In order to keep abreast of progress in the industries concerned, Australian standards are subject to periodical review. Suggestions for improvements, addressed to the Headquarters of the Association, will be welcomed.**

**The specification is intended to include the technical provisions necessary for the supply of the materials herein referred to, but does not purport to comprise all the necessary provisions of a contract.**

---

## **AUSTRALIAN STANDARD**

# **SPECIFICATION AND METHODS OF TEST FOR PORTLAND CEMENT (METRIC UNITS)**

**AS 1315—1973**

First issued	...	...	...	...	1973
--------------	-----	-----	-----	-----	------

Registered in Australia for transmission by post as a book.

**PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA  
STANDARDS HOUSE, 80 ARTHUR ST, NTH SYDNEY, N.S.W. (Copyright)**

ISBN 0 7262 4897 5

## PREFACE

This standard was prepared by the Committee on Cement as the metric version of AS A2—1963. No changes have been made in either performance requirements or methods of test other than those associated with the conversion of imperial units to metric units.

Following the publication of AS A2—1963, the committee prepared AS A174—1969, Spectrophotometric Analysis of Cement, which provided an alternative to the existing methods of analysis given in AS A2. A metric version of AS A174 has been published as AS 1378—1972.

The committee has also prepared SAA MP27—1973, Manual on the Physical Testing of Portland Cement, which provides supplementary information on the methods of test given in this standard. Complementary standards include AS 1316—1972, Masonry Cement, and AS 1317—1972, Blended Cements.

A number of important matters are still being investigated, including a standard concrete test for the determination of cement strengths, sampling provisions and performance requirements.

In preparing this standard the committee kept constantly in mind the fact that the provisions of the standard establish minimum requirements for a particular type of cement and do not purport to cover all of the requirements which might be necessary for a cement for a particular application. This is a matter for normal commercial negotiation. The specification and the methods of test herein are designed to specify a good commercial quality cement in the four types covered.

All Australian standards, including methods of test, are subject to review from time to time so that advantage may be taken of any improvements made to the product concerned or of development of technique resulting from practical laboratory application. Users of this standard are particularly asked to advise the Association of their experience in its practical use and suggestions would be welcomed which would improve either the provisions or the methods of test described. Such comments should be addressed to the headquarters of the Association, Standards House, 80 Arthur Street, North Sydney, N.S.W. 2060.

# CONTENTS

	<i>Page</i>
<b>PART 1. SPECIFICATION</b>	
1 Scope .. .. .	4
2 Description .. .. .	4
3 Application .. .. .	4
4 Tests .. .. .	4
5 Chemical Properties .. .. .	5
6 Hypothetical Compound Composition .. .. .	5
7 Setting Time .. .. .	6
8 Soundness .. .. .	7
9 Constancy of Volume .. .. .	7
10 Compressive Strength .. .. .	7
11 Fineness .. .. .	7
12 Heat of Hydration .. .. .	7
13 Packing, Marking, Delivery and Inspection .. .. .	7
14 Sampling .. .. .	8
<b>PART 2. METHODS OF TEST</b>	
Section 1. Method for the Determination of Chemical Composition of Portland Cement .. .. .	9
Section 2. Methods of Test for Physical Properties of Portland Cement .. .. .	18
Section 3. Method of Test for Fineness of Portland Cement by Air Permeability Method .. .. .	33
Section 4. Method for the Determination of Heat of Hydration of Portland Cement .. .. .	44
<b>APPENDIX A. CEMENT TEST CERTIFICATE</b> .. .. .	52

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- Looking for additional Standards? Visit Intertek Inform Infostore
  - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-