

Under Revision DR 93048

Superseded by AS/NZS 2312:1994
This is a free 5 page sample. Access the full version online.

ENDORSED AS SUITABLE FOR USE IN N.Z.

SEE ALSO SANZ MP 2312:1987

AS 2312—1984

UDC 624.014.2:691.71:620.197.6

Australian Standard[®] 2312—1984

see also

"Guide to AS 2312"
published by WATLYL
GA1.7
3

GUIDE TO THE PROTECTION OF IRON AND STEEL AGAINST EXTERIOR ATMOSPHERIC CORROSION



STANDARDS ASSOCIATION OF AUSTRALIA

Incorporated by Royal Charter



This Australian standard was prepared by Committee MT/14, Corrosion of Metals. It was approved on behalf of the Council of the Standards Association of Australia on 28 August 1984 and published on 7 December 1984.

received in Sales Dept 20.5.1985

The following interests are represented on Committee MT/14:

Aluminium Development Council
Australasian Corrosion Association
Australasian Institute of Metal Finishing
Australian Gas Association
Australian Institute of Steel Construction Ltd
Australian Zinc Development Association
Bureau of Steel Manufacturers of Australia
Commonwealth Scientific and Industrial Research Organization
Confederation of Australian Industry
Copper Development Association of Australia Limited
Department of Defence
Electricity Supply Association of Australia
National Association of Australian State Road Authorities
Railways of Australia Committee
Society of Automotive Engineers—Australasia
State Electrolysis Committees
Telecom Australia
University of New South Wales

Representatives of the following interest also participated in the drafting of this standard:

Department of Housing and Construction

Review of Australian Standards. To keep abreast of progress in industry, Australian standards are subject to periodic review and are kept up-to-date by the issue of amendments or new editions as necessary. It is important therefore that standards users ensure that they are in possession of the latest edition, and any amendments thereto.

Full details of all SAA publications will be found in the Catalogue of SAA Publications; this information is supplemented each month by SAA's journal 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn standards.

Suggestions for improvements to Australian standards, addressed to the head office of the Association, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian standard should be made without delay in order that the matter may be investigated and appropriate action taken.

AUSTRALIAN STANDARD

**GUIDE TO THE PROTECTION
OF IRON AND STEEL AGAINST
EXTERIOR ATMOSPHERIC
CORROSION**

AS 2312—1984

First published.....	1980 ✓
Second edition.....	1984

**PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY, N.S.W.**



ISBN 0 7262 3506 7

PREFACE

This edition of this standard was prepared under the direction of the Association's Committee on Corrosion of Metals by its subcommittee on corrosion protection of steelwork, to supersede AS 2312—1980. The standard provides guidance for architects, engineers, builders, the surface coating industry and users of protective services in general on coating systems for the protection of iron and steel against exterior atmospheric corrosion.

The subject of this standard was previously dealt with in SAA MA1, Manual on Steel Structures, Part 5—Protection of Steel from Corrosion, and the standard represents both a revision and an expansion of SAA MA1.5; whereas, however, SAA MA1.5 contained descriptive information from which a user of the document could arrive at a satisfactory method of protection, this standard is more detailed in that systems have been included with specified lives to first maintenance. Attention is drawn to the fact that the standard is also available in the MA1 format, as a revised edition of SAA MA1.5 so that users of the Manual will continue to have a complete set of the Parts of the Manual.

During drafting of the first (1980) edition of this standard, consideration was given to BS 5493* to which acknowledgement is made. During 1980 a series of seminars was held around Australia to introduce AS 2312, and to discuss aspects which related to the preparation and use of the standard. Comments forthcoming from the seminars were considered by the subcommittee as being desirable for inclusion in AS 2312 since they provided additional information and elaboration on particular subjects, and their inclusion initiated this second edition.

In providing recommendations on appropriate protection systems, the committee was aware of the large number of systems used commercially but to avoid confusion included only a limited range of systems for each type of environment.

The committee acknowledges the developments which are taking place in the protection of iron and steel and will monitor these in order to make such changes to this standard as may become necessary.

*BS 5493 Code of Practice for Protective Coating of Iron and Steel Structures Against Corrosion.

© Copyright — STANDARDS ASSOCIATION OF AUSTRALIA 1984

Users of standards are reminded that copyright subsists in all SAA publications. No part of this publication may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing of the Standards Association of Australia.

CONTENTS

	<i>Page</i>
FOREWORD	
Introduction	5
Guidance on the Use of the Standard	5
SECTION 1. SCOPE AND GENERAL	
1.1 Scope	9
1.2 Application	9
1.3 Referenced Documents	9
1.4 Safety and Health	9
SECTION 2. ATMOSPHERIC ENVIRONMENTS	
2.1 General	10
2.2 Atmospheric Classifications (Applicable to Steel)	10
SECTION 3. CORROSION PROTECTION SYSTEMS	
3.1 General	12
3.2 Coating/Exposure Classifications	12
3.3 Recommended Coating Systems	12
SECTION 4. PLANNING AND DESIGN FOR CORROSION PROTECTION	
4.1 General	14
4.2 Planning	14
4.3 Design	14
SECTION 5. SURFACE PREPARATION TREATMENTS	
5.1 General	25
5.2 Degreasing	25
5.3 Cleaning and Preparation Using Acid Solutions (Non-immersion)	25
5.4 Abrasive Blast Cleaning	25
5.5 Pickling	26
5.6 Phosphate Conversion Coatings	26
5.7 Flame Cleaning	26
5.8 Power Tool Cleaning	26
5.9 Hand Tool Cleaning	27
5.10 Protection of Steel During Extended Fabrication	27
SECTION 6. METALLIC COATINGS FOR CORROSION PROTECTION	
6.1 General	28
6.2 Hot Dip Galvanizing	28
6.3 Metal Spray Coatings	29
6.4 Electroplated Coatings	29
6.5 Roofing and Cladding Materials—Steel Base	30
SECTION 7. PAINT COATING SYSTEMS FOR CORROSION PROTECTION	
7.1 General	31
7.2 Design Considerations	31
7.3 Coating Systems Reference Numbers	31
7.4 Effects of Delays During Painting	32
7.5 Paint Coating Systems	32
7.6 Selection of Colour	32
7.7 Heat Resisting Paints	32

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](#)
-