



Cathodic protection of metals

Part 1: Pipes and cables



This Australian Standard® was prepared by Committee MT-014, Corrosion of Metals. It was approved on behalf of the Council of Standards Australia on 8 January 2015. This Standard was published on 27 January 2015.

The following are represented on Committee MT-014:

- Australasian Corrosion Association
 - Australian Chamber of Commerce and Industry
 - Australian Electrolysis Committee
 - Australian Industry Group
 - Australian Paint Manufacturers' Federation
 - Australian Pipeline Industry Association
 - Austroads
 - Bureau of Steel Manufacturers of Australia
 - CSIRO Manufacturing and Materials Technology
 - Galvanizers Association of Australia
 - Galvanizing Association of New Zealand
 - Materials Australia
 - New Zealand Abrasive Blasting Association
 - New Zealand Heavy Engineering Association
 - United Water International
 - Water Services Association of Australia
-

This Standard was issued in draft form for comment as DR AS 2832.1.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

Keeping Standards up-to-date

Australian Standards® are living documents that reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued.

Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting www.standards.org.au

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.org.au, or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

Australian Standard[®]

Cathodic protection of metals

Part 1: Pipes and cables

Originated as AS 2832.1—1985.
Previous edition AS 2832.1—2004.
Fourth edition AS 2832.1:2015.

COPYRIGHT

© Standards Australia Limited

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968.

Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 978 1 74342 958 7

PREFACE

This Standard has been prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee MT-014, Corrosion of Metals, to supersede AS 2832.1—2004, *Cathodic protection of metals, Part 1: Pipes and cables*.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to specify the technical requirements for the cathodic protection of buried pipes and cables.

The objective of this revision is—

- (a) to cater for changes in government legislation, which affect stray current control on cathodic protection systems on structures;
- (b) to make changes that better reflect the present understanding of corrosion caused by stray direct current interference; and
- (c) to generally update the technical aspects of the standard in line with current industry practice.

This Standard is Part 1 of the AS 2832 series of Standards. The other parts are as follows:

AS	
2832	Cathodic protection of metals
2832.2	Part 2: Compact buried structures
2832.3	Part 3: Fixed immersed structures
2832.4	Part 4: Internal surfaces
2832.5	Part 5: Steel in concrete structures

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

CONTENTS

	<i>Page</i>
FOREWORD.....	6
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE.....	7
1.2 REFERENCED DOCUMENTS.....	7
1.3 DEFINITIONS.....	9
1.4 COMPETENCE OF PERSONNEL.....	13
SECTION 2 CRITERIA FOR CATHODIC PROTECTION	
2.1 SCOPE AND GENERAL	14
2.2 PROTECTION CRITERIA.....	14
2.3 OVERPROTECTION	18
SECTION 3 MEASURING TECHNIQUES AND EQUIPMENT	
3.1 GENERAL.....	19
3.2 POTENTIAL MEASUREMENT AND EQUIPMENT	19
3.3 CURRENT MEASUREMENT AND EQUIPMENT	20
SECTION 4 DESIGN OF STRUCTURES TO ACCOMMODATE CATHODIC PROTECTION	
4.1 SCOPE AND GENERAL	21
4.2 MATERIALS OF CONSTRUCTION.....	21
4.3 COATED AND UNCOATED STRUCTURES.....	21
4.4 ELECTRICAL HAZARDS AND DISTURBANCES	22
4.5 TEST POINTS.....	23
4.6 INSULATING JOINTS (ISOLATION JOINTS).....	24
4.7 ROAD, RAIL AND OTHER CROSSINGS	26
4.8 ELECTRICAL ISOLATION	27
4.9 ELECTRICAL CONTINUITY	27
SECTION 5 DESIGN OF CATHODIC PROTECTION SYSTEMS	
5.1 SCOPE AND GENERAL	28
5.2 SAFETY HAZARDS.....	28
5.3 DESIGN REQUIREMENTS.....	29
5.4 DESIGN DATA.....	30
5.5 MATERIALS.....	30
5.6 TEST POINTS.....	32
5.7 REFERENCE ELECTRODES.....	32
5.8 ELECTRICAL EARTHING	32
5.9 ENVIRONMENTAL, INDIGENOUS AND HISTORIC HERITAGE.....	32
SECTION 6 CATHODIC PROTECTION OF STRUCTURES SUBJECT TO STRAY DIRECT TRACTION CURRENT	
6.1 SCOPE AND GENERAL	33
6.2 MINIMIZATION OF STRAY CURRENT EFFECTS.....	33

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

AS 2832.1 : 2015 : EN PDF

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

Need to speak with a Customer Service Representative - Contact Us