

AS/NZS 61241.0:2005
IEC 61241-0, Ed.1 (2004)
(Incorporating Amendment No. 1)

AS/NZS 61241.0:2005

Australian/New Zealand Standard™

**Electrical apparatus for use in the
presence of combustible dust**

Part 0: General requirements



AS/NZS 61241.0:2005

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-014, Electrical Equipment in Hazardous Areas. It was approved on behalf of the Council of Standards Australia on 8 April 2005 and on behalf of the Council of Standards New Zealand on 15 April 2005.
This Standard was published on 3 May 2005.

The following are represented on Committee EL-014:

Auckland Regional Chamber of Commerce
Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Australian Industry Group
Australian Institute of Petroleum Ltd
Certification Interests (Australia)
Department of Natural Resources and Mines (Qld)
Department of Primary Industries, Mine Safety (NSW)
Electrical Regulatory Authorities Council
Energy Networks Association
Engineers Australia
Institute of Electrical Inspectors
Institute of Instrumentation, Control and Automation Australia
Ministry of Economic Development (New Zealand)
National Electrical and Communications Association
New Zealand Association of Marine, Aviation and Power Engineers
New Zealand Employers and Manufacturers Association
New Zealand Hazardous Areas Electrical Coordinating Committee
The Australian Gas Association
WorkCover New South Wales

Keeping Standards up-to-date

Standards are living documents which 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 Standards may also be withdrawn.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 which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at www.standards.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR 05071.

AS/NZS 61241.0:2005
(Incorporating Amendment No. 1)

Australian/New Zealand Standard™

Electrical apparatus for use in the presence of combustible dust

Part 0: General requirements

Originated as AS C358—1965.
Revised and redesignated as AS 2236—1979.
Final Australian edition AS 2236—1994.
Jointly revised and redesignated as AS/NZS 61241.1.1:1999.
Revised and renumbered (in part) as AS/NZS 61241.0:2005.
Reissued incorporating Amendment No. 1 (July 2005).

COPYRIGHT

© Standards Australia/Standards New Zealand

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.

Jointly published by Standards Australia, GPO Box 5420, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 6671 4

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-014, Electrical Equipment in Hazardous Areas to supersede, in part, AS/NZS 61241.1.1:1999.

This Standard incorporates Amendment No. 1 (July 2005). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

This Standard is identical with, and has been reproduced from IEC 61241-0, Ed. 1 (2004), *Electrical apparatus for use in the presence of combustible dust – Part 0: General requirements*.

The objective of this Standard is to specify general requirements for the design, construction and testing of electrical apparatus to be used in areas where combustible dusts are or may be present.

This first edition of AS/NZS 61241.0, together with AS/NZS 61241.1, cancels and replaces AS/NZS 61241.1.1:1999.

This Standard (and other parts within this Series) was developed to align protection methods associated with electrical apparatus for use in the presence of combustible dust and those similar protection methods associated with the AS/NZS 60079 series of Standards, where possible.

AS/NZS 61241 consists of the following parts under the general title: *Electrical apparatus for use in the presence of combustible dust*:

Part 0:	General requirements
Part 1:	Protection by enclosures ‘tD’
Part 2:	Type of protection ‘pD’*
Part 10:	Classification of areas where combustible dusts are or may be present
Part 11:	Protection by intrinsic safety ‘iD’†
Part 14:	Selection and installation
Part 17:	Inspection and maintenance of electrical installations in hazardous areas (other than mines)†
Part 18:	Protection by encapsulation ‘mD’
Part 20:	Test methods‡
Part 20.1:	Methods for determining the minimum ignition temperatures of dust
Part 20.2:	Method for determining the electrical resistivity of dust in layers
Part 20.3:	Method for determining minimum ignition energy of dust/air mixtures

As this Standard is reproduced from an International Standard, the following applies:

- Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- In the source text ‘this international standard’ should read ‘this Australian/New Zealand Standard’.
- A full point should be substituted for a comma when referring to a decimal marker.

* To be published (to supersede current AS/NZS 61241.4).

† To be published.

‡ Under consideration (to supersede current Parts 2.1, 2.2 and 2.3).

CONTENTS

	<i>Page</i>
1 Scope	1
2 Normative references	1
3 Terms and definitions	4
4 Construction	8
4.1 General	8
4.2 Principles for design and testing of apparatus for use in Zone 20	9
4.3 Opening enclosures	9
4.4 Environmental conditions	9
5 Temperatures	10
5.1 Maximum surface temperature	10
5.2 Maximum surface temperature with respect to dust layers above 50 mm	10
5.3 Ambient temperature	10
6 Enclosure materials	10
6.1 Non-metallic enclosures and non-metallic parts of enclosures	10
6.2 Enclosures containing light metals	12
7 Fasteners	12
7.1 Access to live parts	12
7.2 Compatible material	12
8 Interlocking devices	12
9 Bushings	12
9.1 Prevention of turning	12
9.2 Torque tests	12
10 Materials used for cementing	13
10.1 Documentation	13
10.2 Thermal stability	13
10.3 Verification	13
11 Ex components	13
11.1 General	13
11.2 Mounting	13
11.3 Internal mounting	13
11.4 External mounting	13
12 Connection facilities and terminal compartments	14
12.1 Attached cables	14
12.2 Terminal access	14
12.3 Creepage and clearance	14
13 Connection facilities for earthing or bonding conductors	14
13.1 Internal connection	14
13.2 External connection	14
13.3 Facility not required	14
13.4 Effective connection	14
13.5 Effective contact	15
13.6 Environmental	15
13.7 Use of light metal	15

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
-