

AS/NZS 1020:1995

Australian/New Zealand Standard

**The control of undesirable
static electricity**

AS/NZS 1020:1995

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL/25, Control of Undesirable Static Charges. It was approved on behalf of the Council of Standards Australia on 20 December 1994 and on behalf of the Council of Standards New Zealand on 12 December 1994. It was published on 5 March 1995.

The following interests are represented on Committee EL/25:

Australia Post
Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Australian Institute of Petroleum
Chemical Confederation of Australia
Department of Mineral Resources, N.S.W.
Department of Minerals and Energy, W.A.
Insurance Council of Australia
Plastics Industry Association
Plastics and Rubber Institute
Telecom Australia
WorkCover Authority of N.S.W.

Review of Standards. To keep abreast of progress in industry, Joint Australian/New Zealand 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 Joint Standards and related publications will be found in the Standards Australia and Standards New Zealand Catalogue of Publications; this information is supplemented each month by the magazines 'The Australian Standard' and 'Standards New Zealand', which subscribing members receive, and which give details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Joint Standards, addressed to the head office of either Standards Australia or Standards New Zealand, are welcomed. Notification of any inaccuracy or ambiguity found in a Joint Australian/New Zealand Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

AS/NZS 1020:1995

Australian/New Zealand Standard

The control of undesirable static electricity

First published in Australia as AS 1020—1970.
Second edition 1984.

First published in New Zealand as NZS/AS 1020:1984.

Jointly revised and designated as Joint Standard
AS/NZS 1020:1995.

PUBLISHED JOINTLY BY:

STANDARDS AUSTRALIA
1 The Crescent,
Homebush NSW 2140 Australia

STANDARDS NEW ZEALAND
Level 10, Standards House,
155 The Terrace,
Wellington 6001 New Zealand

ISBN 0 7262 9569 8

PREFACE

This Joint Standard was prepared by the Standards Australia/Standards New Zealand Committee EL/25 on the Control of Undesirable Static Charges following a review of AS 1020—1984.

The major change to this Standard is that the referenced documents have been updated. There are no technical changes. The Standard has also been published as a joint Standard to reflect the common requirements applying in both countries.

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is only for information and guidance.

© Copyright — STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Users of Standards are reminded that copyright subsists in all Standards Australia and Standards New Zealand publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia or Standards New Zealand may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia or Standards New Zealand. Permission may be conditional on an appropriate royalty payment. Australian requests for permission and information on commercial software royalties should be directed to the head office of Standards Australia. New Zealand requests should be directed to Standards New Zealand.

Up to 10 percent of the technical content pages of a Standard may be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia or Standards New Zealand.

Inclusion of copyright material in computer software programs is also permitted without royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia or Standards New Zealand at any time.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE	7
1.2 PURPOSE	7
1.3 REFERENCED DOCUMENTS	7
1.4 DEFINITIONS	9
SECTION 2 GENERATION, INDUCTION AND DANGERS— BASIC CONSIDERATIONS	
2.1 GENERATION OF STATIC	11
2.2 INDUCTION OF STATIC	11
2.3 COMMON SOURCES OF GENERATION	11
2.4 FIRE AND EXPLOSION DANGERS	12
2.5 REMOVAL OF FIRE AND EXPLOSION DANGERS	12
2.6 WORKING SURFACES AND FLOOR SURFACE COVERINGS	12
SECTION 3 STATIC DISCHARGES	
3.1 NATURE OF STATIC DISCHARGES	14
3.2 ENERGY OF A STATIC DISCHARGE	14
SECTION 4 SOLID OBJECTS	
4.1 SELECTION OF AN APPROPRIATE CONTROL METHOD	16
4.2 CONDUCTING OBJECTS	16
4.3 NON-CONDUCTING OBJECTS	17
SECTION 5 PERSONS	
5.1 GENERAL	21
5.2 WEARING APPAREL (OTHER THAN FOOTWEAR)	21
5.3 EARTHING OF PERSONS BY FOOTWEAR	21
5.4 OTHER MEANS OF EARTHING PERSONS	22
SECTION 6 LIQUIDS	
6.1 INTRODUCTION	23
6.2 SELECTION AND APPLICATION OF AN APPROPRIATE CONTROL METHOD	25
6.3 DISSIPATING CHARGE FROM INSTALLATIONS	26
6.4 DISSIPATING CHARGE FROM LIQUIDS	26
6.5 CONDUCTIVITY IMPROVERS (ANTISTATIC ADDITIVES)	26
6.6 REDUCING THE LIKELIHOOD OF STATIC DISCHARGES ABOVE A LIQUID SURFACE	26
6.7 AVOIDANCE OF TURBULENCE	27
6.8 AVOIDANCE OF CONTAMINANTS	27
6.9 AVOIDANCE OF HIGH FLOW VELOCITIES	27
6.10 USE OF RELAXATION SECTIONS	28
6.11 STATIC CHARGE REDUCERS	29
6.12 METALLIC PIPING	29

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](#)
-