Australian/New Zealand Standard™

Conduit systems for cable management

Part 22: Particular requirements— Pliable conduit systems





AS/NZS 61386.22:2015

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-004, Electrical Accessories. It was approved on behalf of the Council of Standards Australia on 16 January 2015 and on behalf of the Council of Standards New Zealand on 20 January 2015.

This Standard was published on 10 February 2015.

The following are represented on Committee EL-004:

Australian Chamber of Commerce and Industry Australian Industry Group **Consumer Electronics Suppliers Association** Consumers Federation of Australia **Electrical Compliance Testing Association Electrical Regulatory Authorities Council Engineers** Australia International Accreditation New Zealand Ministry of Business, Innovation & Employment, New Zealand New Zealand Manufacturers and Exporters Association NSW Office of Fair Trading Plastics Industry Pipe Association of Australia

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 Standards may also be withdrawn.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.saiglobal.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

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 AS/NZS 61386.22:2014.

Australian/New Zealand Standard[™]

Conduit systems for cable management

Part 22: Particular requirements— Pliable conduit systems

First published in Australia, in part, as AS C154—1958, AS C173—1964, AS C175—1967 and AS C183—1970. Jointly revised and redesignated as AS/NZS 2053.5:1995. Previous edition 2001. Jointly revised and redesignated as AS/NZS 61386.22:2015.

COPYRIGHT

© Standards Australia Limited/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, unless otherwise permitted under the Copyright Act 1968 (Australia) or the Copyright Act 1994 (New Zealand).

Jointly published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001 and by Standards New Zealand, Private Bag 2439, Wellington 6140.

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-004, Electrical Accessories, to run in parallel with AS/NZS 2053.5:2001, *Conduits and fittings for electrical installations*, Part 5: *Corrugated conduits and fittings of insulating material*. It is the intention of Committee EL-004 that AS/NZS 2053.5 will be withdrawn at some appropriate future time.

The objective of this Standard is to provide Australian and New Zealand electrical industries with requirements for pliable conduit systems for cable management.

The essential safety requirements in AS/NZS 3820, *Essential safety requirements for electrical equipment*, that could be applicable to cable management systems are covered by this Standard.

This Standard is based on but not equivalent to IEC 61386-22, Ed.1.0 (2002), *Conduit systems for cable management*, Part 22: *Particular requirements—Pliable conduit systems*. The main areas of variation from IEC include dimensional requirements.

This Standard is Part 22 of the AS/NZS 61386 series of Standards on conduit systems. It specifies particular requirements for pliable conduit systems, and is to be used in conjunction with AS/NZS 61386.1, which specifies general requirements for conduit systems.

This Part 22 supplements or modifies the corresponding clauses of AS/NZS 61386.1. Where a particular clause or subclause of Part 1 is not mentioned in this Part 22, that clause applies as far as is reasonable. Where this Part 22 states '*addition*', '*modification*' or '*replacement*', the relevant text of Part 1 is to be adapted accordingly.

Subclauses, tables and figures, which are in addition to those in Part 1, are numbered starting with 201.

The series comprises the following:

AS/NZS

61386 Conduit systems for cable management

61386.1 Part 1: General requirements

61386.21 Part 21: Particular requirements—Rigid conduit systems

61386.22 Part 22: Particular requirements—Pliable conduit systems (this Standard)

61386.23 Part 23: Particular requirements—Flexible conduit systems

The term 'normative' has been used in this Standard to define the application of the Appendix to which it applies. A 'normative' Appendix is an integral part of a Standard.

CONTENTS

	Page
1	SCOPE
2	NORMATIVE REFERENCES
3	DEFINITIONS4
4	GENERAL REQUIREMENTS 4
5	GENERAL CONDITIONS FOR TESTS
6	CLASSIFICATION
7	MARKING AND DOCUMENTATION
8	DIMENSIONS
9	CONSTRUCTION
10	MECHANICAL PROPERTIES
11	ELECTRICAL PROPERTIES
12	THERMAL PROPERTIES
13	FIRE EFFECTS
14	EXTERNAL INFLUENCES7
15	ELECTROMAGNETIC COMPATIBILITY
APPEN	DICES
А	DETERMINATION OF MATERIAL THICKNESS 10
В	MEASUREMENT OF THE DIMENSIONS OF CONDUITS AND FITTINGS11

MEASUREMENT OF THE DIMENSIONS OF CONDUITS AND FITTINGS......11

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard Conduit systems for cable management

Part 22: Particular requirements—Pliable conduit systems

1 SCOPE

This Clause of Part 1 is applicable, except as follows.

Addition:

This Standard specifies the requirements for pliable conduit systems including self-recovering conduit systems.

2 NORMATIVE REFERENCES

This Clause of Part 1 is applicable.

3 DEFINITIONS

This Clause of Part 1 is applicable.

4 GENERAL REQUIREMENTS

This Clause of Part 1 is applicable.

5 GENERAL CONDITIONS FOR TESTS

This Clause of Part 1 is applicable.

6 CLASSIFICATION

This Clause of Part 1 is applicable.

7 MARKING AND DOCUMENTATION

This Clause of Part 1 is applicable, except as follows:

7.1 Information to be marked on conduits

Addition:

7.1.201 The conduit shall be marked in accordance with Clause 7.1 along its entire length at regular intervals of preferably 1 m but not longer than 3 m. Where this is technically impractical, the mark shall be on a label attached to the product at each end or on the packaging.

Conduits made of PVC and complying with the best environmental practice requirements of AS/NZS 1260 may be marked with the letters 'BEP PVC' or the words 'best environmental practice PVC'. Compliance with best environmental practice requirements is not required for compliance with this Standard.

Compliance shall be checked by inspection.

7.1.202 The manufacturer shall document for the system the minimum inside diameter and the classification in accordance with Clause 6.