

Australian Standard™

**Paints for steel structures**

**Part 18: Moisture cure methane  
(single-pack) systems**

This Australian Standard was prepared by Committee CH-003, Paints and Related Materials. It was approved on behalf of the Council of Standards Australia on 10 June 2002 and published on 15 August 2002.

---

The following are represented on Committee CH-003:

AUSTROADS

Australian Paint Approval Scheme

Australian Paint Manufacturers Federation

Master Painters Australia

National Association of Testing Authorities Australia

Surface Coatings Association Australia

Telstra Corporation

Water Corporation Western 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 Standards may also be withdrawn.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 Standards can be found by visiting the Standards Australia web site at [www.standards.com.au](http://www.standards.com.au) and looking up the relevant Standard in the on-line catalogue.

Alternatively, the printed Catalogue provides information current at 1 January each year, and the monthly magazine, *The Australian Standard*, has a full listing of revisions and amendments published each month.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at [mail@standards.com.au](mailto:mail@standards.com.au), or write to the Chief Executive, Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001.

---

Australian Standard™

**Paints for steel structures**

**Part 18: Moisture cure urethane  
(single-pack) systems**

First published as AS 3750.18—2002.

**COPYRIGHT**

© Standards Australia International

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.

Published by Standards Australia International Ltd  
GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 4731 0

## PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee CH-003, Paints and Related Materials. 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 following Standards in this series have been published:

## AS

- 3887 Paints for steel structures—Coal tar epoxy (two-pack)
- 3750 Paints for steel structures
- 3750.1 Part 1: Epoxy mastic (two-pack)—For rusted steel
- 3750.2 Part 2: Ultra high-build paint

## AS/NZS

- 3750.3 Part 3: Heat resisting—Exterior
- 3750.4 Part 4: Bitumen paint
- 3750.5 Part 5: Acrylic full gloss (two-pack)
- 3750.6 Part 6: Full gloss polyurethane (two-pack)
- 3750.7 Part 7: Aluminium paint
- 3750.8 Part 8: Vinyl paints—Primer, high-build and gloss
- 3750.9 Part 9: Organic zinc-rich primer
- 3750.10 Part 10: Full gloss epoxy (two-pack)
- 3750.11 Part 11: Chlorinated rubber—High-build and gloss
- 3750.12 Part 12: Alkyd/micaceous iron oxide
- 3750.13 Part 13: Epoxy primer (two-pack)
- 3750.14 Part 14: High build epoxy (two-pack)
- 3750.15 Part 15: Inorganic zinc silicate paint
- 3750.16 Part 16: Waterborne primer and paint for galvanized zinc-aluminium alloy-coated and zinc-primed steel
- 3750.17 Part 17: Etch primer (single pack and two-pack)

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>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE.....	4
1.2 OBJECTIVE.....	4
1.3 REFERENCED DOCUMENTS.....	4
1.4 DEFINITIONS.....	4
1.5 SAFETY PRECAUTIONS .....	5
SECTION 2 MATERIAL REQUIREMENTS	
2.1 GENERAL.....	6
2.2 CONDITIONS OF TEST.....	6
2.3 LIQUID PAINT .....	6
2.4 APPLICATION PROPERTIES .....	7
2.5 APPLIED FILM .....	9
SECTION 3 PACKAGING AND LABELLING	
3.1 PACKAGING.....	12
3.2 LABELLING.....	12
APPENDICES	
A PURCHASING GUIDELINES .....	13
B GUIDANCE ON THE USE AND APPLICATION OF MOISTURE CURE URETHANE PAINT .....	14
C MEANS FOR DEMONSTRATING COMPLIANCE WITH THIS STANDARD .....	17
D REFERENCED DOCUMENTS.....	19
E PREPARATION OF TEST PANELS .....	21
F PREPARATION OF PANELS FOR TESTING RESISTANCE TO WEATHERING.....	22
G ASSESSMENT OF RESISTANCE OF A MOISTURE CURE URETHANE PAINT TO ALKALI AND ACID.....	23

## STANDARDS AUSTRALIA

**Australian Standard  
Paints for steel structures****Part 18: Moisture cure urethane  
(single-pack) systems**

## SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE**

This Standard specifies requirements for one-component, solvent-borne unmodified moisture cure urethane (MCU) paints intended to be used primarily for the protection of iron and steel against exterior atmospheric corrosion. They are best applied by conventional air or airless spraying, but are also suitable for application by brush or roller.

These paints are intended primarily for use as a paint system for the protection of iron and steel against corrosion involving wet and damp areas, high humidity, coastal/marine and industrial fallout. Some of these products are suitable for burial and immersion. Polyurethane paints are in general more suitable for use in those applications where it is desirable to retain colour and gloss in addition to providing corrosion resistance.

Moisture cure urethane paint, specified in this Standard as zinc-pigmented primer, MIO intermediate and finish coat paint, is described as Paint Reference Nos 38, 39 and 40 respectively in AS/NZS 2312 and may be used with the appropriate systems MCU1 and MCU2.

## NOTES:

- 1 'Unmodified MCU paints' are defined in ASTM D16 as Type II.
- 2 Appendix A contains recommendations and advice on information that should be provided by the purchaser at the time of enquiry or order.
- 3 Additional information on the use and application of moisture cure urethane paints is contained in Appendix B.
- 4 Alternative methods for determining compliance with this Standard are given in Appendix C.
- 5 The paints are available in a range of colours.

**1.2 OBJECTIVE**

The objective of this Standard is to specify requirements for moisture cure urethane paints used on steel structures. It forms part of a series of product Standards for paints referred to in AS/NZS 2312.

**1.3 REFERENCED DOCUMENTS**

A list of the documents referred to in this Standard is contained in Appendix D.

**1.4 DEFINITIONS**

For the purpose of this Standard, the definitions given in AS/NZS 2310 and those below apply.