

Australian/New Zealand Standard™

Paints for steel structures

Part 6: Full gloss polyurethane (two-pack)



AS/NZS 3750.6:2009

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CH-003, Paints and Related Materials. It was approved on behalf of the Council of Standards Australia on 16 March 2009 and on behalf of the Council of Standards New Zealand on 27 March 2009.

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The following are represented on Committee CH-003:

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Australian Paint Manufacturers' Federation
Australian Pipeline Industry Association
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CH-003, Paints and Related Materials to supersede AS/NZS 3750.6:1995. It is part of a series of product Standards for paints referred to in AS/NZS 2312, *Guide to the protection of structural steel against atmospheric corrosion by the use of protective coatings*.

The objective of this Standard is to specify requirements for full gloss polyurethane paints used on steel structures. This Standard includes information on high-build paints and supersedes AS/NZS 3750.6:1995.

The following Standards in this series have been published:

AS

- 2364 Paints for steel structures—High build epoxy (two-pack)
- 2672 Paints for steel structures—Chlorinated rubber, high build
- 2673 Paints for steel structures—Alkyd/micaceous iron oxide
- 2674 Paints for steel structures—Epoxy primer (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
- 3884 Etch primers (single pack and two-pack) for pretreating metal surfaces
- 3885 Paints for steel structures—Galvanized and zinc primed—Latex
- 3887 Paints for steel structures—Coal tar epoxy (two-pack)

AS/NZS

- Paints for steel structures
- 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) (this Standard)
- 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 glass
- 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 primers (single pack and two-pack)
- 3750.18 Part 18: Moisture cure urethane (single-pack) systems
- 3750.19 Part 19: Metal primer—General purpose
- 3750.20 Part 20: Anticorrosive metal primer—Solvent-borne—Lead and chromate free
- 3750.21 Part 21: Undercoat—Solvent-borne
- 3750.22 Part 22: Full gloss enamel—Solvent-borne
- 3750.23 Part 23: Semi-gloss enamel—Solvent-borne

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.

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Australian/New Zealand Standard
Paints for steel structures**Part 6: Full gloss polyurethane (two-pack)**

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for two-component, solvent-borne, full gloss polyurethane paints intended to be used primarily for the protection of structural steel against exterior atmospheric corrosion. A full gloss polyurethane consists essentially of a polyester, polyacrylate or other polyol base cured with an aliphatic isocyanate hardener and appropriate pigments and solvents.

These paints are intended for use as an aesthetic topcoat for the protection of iron and steel against corrosion involving wet and damp areas, high humidity, coastal/marine and industrial fallout or as a wear and tear or stain or chemically resistant finish. Polyurethane paints are particularly suited to applications where it is desirable to retain colour and gloss in addition to providing corrosion resistance. For the purpose of this Standard polyurethane paints are divided into two types by intended end use:

- (a) Type 1: A general purpose industrial two-pack polyurethane coating. Typically used on plant and equipment and in structural applications where a higher level of aesthetic performance than conventional alkyd or epoxy finishes is required.
- (b) Type 2: An industrial two-pack polyurethane coating giving premium levels of aesthetic performance.

Both types may be available as either low or high volume solids formulations. They are best applied by conventional air or airless spraying but may also be formulated specifically for brush and roller application.

NOTES:

- 1 Appendix A contains recommendations and advice on information that should be provided by the purchaser at the time of enquiry or order.
- 2 Additional information on the use and application of polyurethane paints is contained in Appendix B.

1.2 REFERENCED DOCUMENTS

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

1.3 DEFINITIONS

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

1.3.1 Component

Each of two parts of the paint that, when mixed together, form the pigmented full gloss polyurethane paint.