

Australian/New Zealand Standard™

Paints for steel structures

Part 22: Full gloss enamel—Solvent-borne



AS/NZS 3750.22:2008

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 19 March 2007 and on behalf of the Council of Standards New Zealand on 3 March 2007.

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The following are represented on Committee CH-003:

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Australasian Corrosion Association

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Australian Paint Manufacturers' Federation

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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 4025.1—1992, *Paints for equipment including ships, Part 1: Solvent-borne—Interior and exterior—Full gloss enamel*.

See AS/NZS 3750.0 for other published Standards in this series.

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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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard**Paints for steel structures****Part 22: Full gloss enamel—Solvent-borne****1 SCOPE**

This Standard sets out requirements for full gloss enamel, solvent-borne paints as part of a system for the protection of iron and steel against atmospheric corrosion. They are intended to be applied, as supplied, by brush, roller or spray.

This Standard applies to paints intended for the topcoating of primed metal surfaces with a full gloss film that will provide resistance to weathering, washing and intermittent contact with petrol or mineral oils.

2 REFERENCED DOCUMENTS

A list of documents referred to in this Standard is given in Appendix A.

3 DEFINITIONS

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

3.1 Commercial colour match

Where the colour of the test sample appears to be the same as a reference sample when separated by a minimum of 10 cm and viewed under specified conditions.

4 MATERIAL REQUIREMENTS

NOTE: The properties and requirements for paint to this Standard are summarized in Table 1.

4.1 Composition

The paint shall consist essentially of pigments, extenders, alkyd resin binder and drying oils, and volatile solvents such as a mineral turpentine or mineral spirits. The product shall meet the requirements of a Class III paint as defined in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) issued by the Department of Health and Ageing.

4.2 Conditions of test

Unless otherwise indicated, the requirements specified in this Standard apply to products that are tested under the following conditions:

- (a) The test panel material is tinplate as specified in AS/NZS 1580.104.1. Where reference panels are required, they shall be composed of the same material as the test panel and shall be prepared by methods identical to those used for the test panel.
- (b) The size of test panels is as specified in Table 1 for the appropriate test method.
- (c) The method of test paint application is by brush.
- (d) The spreading rate of the paint is between 15 m²/L and 18 m²/L.
- (e) Environmental conditions for testing are in accordance with AS/NZS 1580.101.5.
- (f) Environmental conditions for air-drying are in accordance with AS/NZS 1580.101.1.

4.3 Liquid paint

4.3.1 Condition in container

When examined in accordance with AS/NZS 1580.103.1 at the time of delivery from the manufacturer or supplier, the paint shall be free from gel, coarse particles, skin and foreign matter. It shall readily yield a product of uniform consistency when manually re-incorporated in accordance with AS/NZS 1580.211.2.

4.3.2 Fineness of grind

When determined in accordance with AS/NZS 1580.204.1, the fineness of grind shall be less than or equal to 15 µm.

4.3.3 Volume solids

Where a volume solids requirement is specified, it shall be determined and expressed in accordance with AS 1580.301.2.

4.3.4 Susceptibility to formation of skin

When the paint is tested in accordance with AS 1580.203.1, it shall not exhibit any skin formation.

4.3.5 Storage stability

When housed under cover in the original unopened container at ambient temperatures for up to 18 months from the date of manufacture, and examined in accordance with AS/NZS 1580.103.1, the paint shall exhibit—

- (a) a settlement rating of no less than 6, as defined in AS/NZS 1580.211.1; and
- (b) a uniform consistency free of lumps, gel, sediment and other visible defects after stirring, as described in AS/NZS 1580.211.2.

The container shall not exhibit rust or other signs of corrosion on its interior surface.

4.3.6 Viscosity

A sample of paint which has been prepared and tested in accordance with AS 1580.214.3, shall have a viscosity within the range of 0.10 Pa.s to 0.40 Pa.s.

4.4 Application properties

4.4.1 General

The applied film shall not run, streak, sag or exhibit undesirable roughness or grittiness when dry, regardless of the method of application used (see Clauses 4.4.2 to 4.4.4).

4.4.2 Brushing

When applied to a test panel (see Clause 4.2) in accordance with AS/NZS 1580.205.1, the test paint shall exhibit satisfactory brushing properties and be free from defects.

4.4.3 Rolling

When applied to a test panel (see Clause 4.2) in accordance with AS/NZS 1580.205.3, the test paint shall exhibit satisfactory rolling properties and be free from defects.

4.4.4 Spraying

When thinned in accordance with the manufacturer's instructions, and applied to a test panel (see Clause 4.2) in accordance with AS/NZS 1580.205.2 or AS/NZS 1580.205.4, the test paint shall exhibit good spraying properties and not clog the spray gun.