

SECTION 9 PAINTING

1 GENERAL

1.1 AIMS

Responsibilities

General: Provide coating systems to substrates as follows:

- Consistent in colour, gloss level, texture and dry film thickness.
- Free of runs, sags, blisters, or other discontinuities.
- Paint systems fully opaque.
- Clear finishes at the level of transparency consistent with the product.
- Fully adhered.
- Resistant to environmental degradation within the manufacturer's stated life span.

Selections: Conform to the **Selections**.

1.2 CROSS REFERENCES

General

General: Conform to the *General Requirements* worksection.

1.3 STANDARDS

Painting

General: Comply with the recommendations of those parts of AS/NZS 2311 which are referenced in this worksection.

1.4 INTERPRETATION

Definitions

General: For the purposes of this worksection the definitions given below apply.

- Substrate: The surface to which the coating material is applied or is to be applied.
- Background: The surface to which the undercoat is applied.
- Paint: A product in liquid form, which when applied to a surface, forms a dry film having protective, decorative or other specific technical properties.
- Sealer: A product used to seal substrates to prevent:
 - . Materials from bleeding through to the surface.
 - . Reaction of the substrate with incompatible top coats.
 - . Undue absorption of the following coat into the substrate.
- Primer, prime coat: The first coat of a painting system that helps bind subsequent coats to the substrate and which may inhibit its deterioration.
- Undercoat: An intermediate coat formulated to prepare a primed surface or other prepared surface for the finishing coat.
- Finish coat: The final coat of a coating system.
- Gloss: The optical property of a surface, characterised by its ability to reflect light specularly.

- Sheen: Gloss which is observed on an apparently matt surface at glancing angles of incidence.
- Levels of gloss finish: When the specular direction is 60 degrees, a surface with the following specular gloss readings are defined as follows:
 - . Full gloss finish between 50 and 85 gloss units.
 - . Semi gloss between 20 and 50 gloss units.
 - . Low gloss between 5 and 20 gloss units (also known as low sheen).
 - . Flat finish < 5 gloss units (also known as matt).
- Opacity: The ability of a paint to obliterate the colour difference of a substrate.
- Adhesion: The sum total of forces of attachment between a dry film and its substrate.
- Gloss unit: Numerical value for the amount of specular reflection relative to that of a standard surface under the same geometric conditions.

1.5 INSPECTION

Notice

Inspection: Give notice so that inspection may be made of the following:

- Painting stages:
 - . Completion of surface preparation.
 - . After application of prime or seal coats.
 - . After application of undercoat.
 - . After application of each subsequent coat.

1.6 SUBMISSIONS

Clear finish coated samples

General: Submit pieces of timber or timber veneer matching the timber to be used in the works, prepared, puttied, stained, sealed and coated in accordance with the specified system, of sufficient size so that, each piece can be cut into 4 segments, marked for identification, and distributed as directed.

Paint

General: Submit the selected manufacturer's details at least 3 weeks before the paint is required, as follows:

- Paint brand name and paint line quality statement.
- Material safety data sheets (MSDS) showing the health and safety precautions to be taken during application.
- The published recommendations for maintenance.

Specialist applicators

General: Submit name and contact details of proposed specialist applicators.

Tests

Fire retardant systems: Submit type test results to confirm minimum indices, when tested to AS/NZS 1530.3, on a substrate representative of the intended use, for paint systems specified as Low flame spread or Fire retardant:

- Spread of flame index: 3.
- Sum of Ignitability index and Heat evolved index: 7.

- Smoke developed index: 3.

2 PRODUCTS

2.1 USE OF LOW-VOC PRODUCTS

General

Unless otherwise specified or approved by the Superintendent, provide only low-VOC products for all paint coating system requirements.

Project-specific requirement

For this project: Painted areas showing reflective paint and non-slip paint are shown on drawing 26449/60093/CD/C06.04.

2.2 PAINTS

Paint brand

Quality: If the product is offered in a number of levels of quality, provide premium quality lines.

Combinations

General: Do not combine paints from different manufacturers in a paint system.

Clear timber finish systems: Provide only the combinations of putty, stain and sealer recommended by the manufacturer of the top coats.

Delivery

General: Deliver paints to the site in the manufacturer's labelled and unopened containers.

Putty and fillers

Material: To the recommendation of the paint system manufacturer, as suitable for the substrate and compatible with the primer.

Tinting

General: Provide only products which are colour tinted by the manufacturer or supplier.

Toxic ingredients

General: Comply with the requirements of Appendix I Uniform Paint Standard to the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

Standards

Paint types: Conform to the Australian Standard as referenced in the **Paint type table**.

Paint type table

Paint type	AS/NZS 2311 Paint reference no. (Table 4.1)	Australian Standard
Concrete and masonry sealer	B15	AS 3730.22
One-pack paving paint for concrete	B24	AS 3730.29
Texture finish latex coating for masonry and concrete: exterior	B38	AS/NZS 4548 Parts 1 to 4

3 EXECUTION

3.1 PREPARATION

Standards

General: To AS/NZS 2311 Sections 3.

Order of work

Other trades: Before painting, complete the work of other trades as far as practicable within the area to be painted, except for installation of fittings, floor sanding and laying flooring materials.

Protection

Adjacent surfaces: Protect adjacent finished surfaces liable to damage from painting operations.

'Wet paint' warning

General: Place notices conspicuously and do not remove them until the paint is dry.

Repair

General: Clean off marks, paint spots and stains progressively and restore damaged surfaces to their original condition. Touch up new damaged decorative paintwork or misses only with the paint batch used in the original application.

Substrate preparation

General: Prepare substrates to receive the painting systems.

Cleaning: Clean down the substrate surface. Do not cause undue damage to the substrate or damage to, or contamination of, the surroundings.

Filling: Fill cracks and holes with fillers, sealants, putties or grouting cements as appropriate for the finishing system and substrate, and sand smooth.

3.2 PAINTING

Standard

General: To AS/NZS 2311 Section 6.

Light levels

General: ≥ 400 lux.

Drying

General: Use a moisture meter to demonstrate that the moisture content of the substrate is at or below the recommended maximum level for the type of paint and the substrate material.

Paint application

General: Apply the first coat immediately after substrate preparation and before contamination of the substrate can occur. Apply subsequent coats after the manufacturer's recommended drying period has elapsed.

Painting conditions

General: Do not paint in dusty conditions, or otherwise unsuitable weather as follows unless the paint is suitable and recommended for such conditions:

- Relative humidity: $\geq 85\%$.
- Surface temperature $\leq 10^{\circ}\text{C}$ or $\geq 35^{\circ}\text{C}$.

Spraying

General: If the paint application is by spraying, use conventional or airless equipment which does the following:

- Satisfactorily atomises the paint being applied.
- Does not require the paint to be thinned beyond the maximum amount recommended by the manufacturer.
- Does not introduce oil, water or other contaminants into the applied paint.

Paint with known health hazards: Not permitted on site.

Tinting

General: Tint each coat of an opaque coating system so that each has a noticeably different tint from the preceding coat, except for top coats in systems with more than one top coat.

Services

General: If not embedded, paint new services and equipment including in plant rooms, except chromium, anodised aluminium, GRP, UPVC, stainless steel, non-metallic flexible materials and normally lubricated machined surfaces. Repaint proprietary items only if damaged.

4 SELECTIONS

New unpainted exterior surfaces

Standard: To AS/NZS 2311 Table 5.2.

Specialised painting systems

Standard: To AS/NZS 2311 clause 5.2 for the following final coats:

- High build textured or membrane finishes (B38 to AS/NZS 2311).
- 2 pack gloss pigmented polyurethane (B44 to AS/NZS 2311).
- 2 pack epoxy (B29 to AS/NZS 2311).
- 2 pack water based epoxy (B29A to AS/NZS 2311).

4.2 PAINTING SCHEDULES

General

Number of coats: Unless specified as one or two coat systems, each paint system consists of at least 3 coats.

This Page Not Used.