COATING SPECIFICATION

ANTI-GRAFFITI COATING ON CONCRETE STRUCTURES

COATING SPECIFICATION: J2 ISSUE: 5 DATE: MARCH 2026

1.0 SCOPE

This document summarises the coating procedure to protect external surfaces of concrete structures by application of one coat of epoxy concrete primer followed by anti-graffiti polyurethane top coat.

Refer Design Standard, DS 95 (Standard for the Selection, Preparation, Application, Inspection and Testing of Protective Coatings on Water Corporation Assets) for additional information or clarification.

It shall be read in conjunction with Water Corporation Specification **A5 - Surface Preparation for the application of Protective Coatings on Concrete**.

2.0 PURPOSE

The purpose of this coating specification is to provide guidance on the application of anti-graffiti coatings to the external surfaces of concrete tanks and other concrete structures, which are susceptible to graffiti.

3.0 DEFINITIONS

ACA: Australasian Corrosion Association.

Contractor: The service provider or its sub-contractor who will undertake the works.

Corporation: The Water Corporation and the Principal for the purposes of externally contracted asset delivery.

DFT: Dry Film Thickness.

ITP: Inspection and Test Plan(s) for the Works.

NACE: National Association of Corrosion Engineers.

AMPP: The Association for Materials Protection and Performance.

Superintendent: The Superintendent for the contract, as defined in the conditions of contract, who is appointed by the Water Corporation to manage/oversee the work under the contract on behalf of the Water Corporation.

Works: The surface preparation, coating application and inspection to be undertaken by the contractor to which this coating specification applies.

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4.0 SURFACE PREPARATION

4.1 On new concrete surface, allow new concrete to cure a minimum of 7 days at 24 ^{0}C or follow the coating manufacturer's recommendation for minimum concrete curing time before commencement of works.

4.2 All visible contaminations dirt, oxides, paint and other foreign matters, including concrete curing agent if it is used, shall be removed from the surfaces to be coated, preferably by high pressure water blast, e.g., around 3000 psi or follow the coating manufacturer's recommendation for suitable alternative surface preparation method. ICRI Guideline 310.2R CSP 3 for concrete surfaces shall be followed.

4.3 Prior to primer application, the moisture content of concrete substrate shall be a maximum of 6%.

4.4 If required, all crevices, holes and cracks shall be filled with fairing mortar, e.g. Renderoc FC or similar approved equivalent.

4.5 Please note surface preparation by acid etching is not permitted.

4.6 Coating shall not be applied to surfaces, which have become contaminated or deteriorated after cleaning and preparation.

5.0 COATING SYSTEM

5.1 The coating is anti graffiti polyurethane coating system, e.g. Dulux Weathermax HBR or similar approved equivalent. Other suitable coating system shall be selected in accordance with Appendix 3 of DS95, unless approved otherwise by the Principal prior to commencement of work.

5.2 The coating components shall be thoroughly mixed in accordance with manufacturer's recommendation before commencing with coating application. All prepared materials shall be used within the 'pot-life' period as specified by the manufacturer.

5.3 Coating specifications inclusive of datasheets, coating application, method statements and ITPs shall be submitted to the Principal for approval at least 10 working days prior to commencement of the work.

5.4 Recommended drying times between coats for on-site conditions by the coating manufacturer shall not be exceeded.

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6.0 COATING THICKNESS

6.1 Apply one coat of epoxy primer that is compatible with the anti-graffiti polyurethane top coat, e.g. Dulux Durabuild STE primer or similar approved equivalent to a dry film thickness (DFT) of 125 microns, then followed by two coats of Dulux Weathermax HBR or similar approved equivalent of 100 microns each, to produce a total DFT of 325 microns. The Contractor shall follow each manufacturer's recommendation total DFT to be applied.

7.0 ATMOSPHERIC CONDITIONS

7.1 Prior to and during coating application, the contractor shall record details pertaining to environmental conditions including ambient and surface temperature, relative humidity and dew point.

7.2 Coating application shall not commence if any one of the following conditions exists:

- The relative humidity is above 85%;
- The substrate temperature is less than dew point plus 3°C;
- The substrate temperature is below 10°C;
- The substrate temperature is above 55°C;
- The surface to be coated is wet or damp;
- The specified cleanliness of the surface deteriorates;
- If the weather is deteriorating or is unfavorable for coating application and/or curing;
- If the pot life of the paint has been exceeded.

8.0 PAINT COLOUR

8.1 The finished colour shall comply with AS 2700 - Colour Standards for General Purposes. If a Principal approved colour is not available, the Contractor shall propose alternative suitable colour and request for written approval by the Principal prior to use.

9.0 COATING FINISH

9.1 The finished coating shall be of uniform thickness, colour, appearance and gloss. It shall be adherent, coherent and free from sags, blistering, checking, wrinkling, overspray, patchiness and any other defect that may impair the performance and/or appearance of the coating.

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10.0 CARE AND MAINTENANCE OF FINISH COAT

10.1 When performing any cleaning activity on the coating surface that requires use of volatile solvents or strong cleaning agents, the contractor must ensure that there is adequate ventilation and appropriate PPE must be worn. Refer to appropriate graffiti remover data sheet supplied by respective paint manufacturer.

11.0 COATING APPLICATOR/PERSONNEL QUALIFICATION

11.1 Work shall only be carried out by competent, experienced personnel.

11.2 The work shall be undertaken by an approved Water Corporation Protective Coating and Concrete Repair Services panel member unless approved otherwise by the Principal.

11.3 The contractor shall nominate a certified coating inspector to perform inspections and maintain appropriate records for the work performed. The Coating Inspector engaged in testing, monitoring, and verification of surface preparation and coating application shall hold relevant inspection qualifications and current certifications (e.g. AMPP / NACE or ACA) as approved by the Principal. Refer to NACE/AMPP supervision guidelines to define roles and accreditation levels. The coating inspector shall conduct the following:

- Prepare Quality Assurance documentation to meet the specified standards given herein and the required acceptance criteria.
- Perform inspections and maintain appropriate records for work performed.
- Testing, monitoring, and verification of surface preparation and coating application.

12.0 INSPECTION AND TESTING OF COATING

12.1 Coatings shall be visually examined for surface defects and any discontinuity arising after curing shall be recorded. The results of this test shall be submitted to the Superintendent.

13.0 REPAIR OF A DEFECTIVE COATING AND RETESTING

13.1 Coatings with defective areas equal to 20% or more of the total coated surface will be rejected outright.

13.2 Defects such as pinholes, cracks, blisters, voids, foreign inclusions and irregular profile peaks shall be marked for repair and retested upon full cure of the repaired coating.

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14.0 RECORDING AND REPORTING

14.1 Following testing a report shall be submitted by the Contractor. The Contractor shall keep detailed records and reports including the following:

- Environmental conditions (relative humidity, dew point etc.);
- Concrete surface moisture content
- Surface preparation;
- Surface profile;
- Coating application;
- Coating testing; and
- General failure.

14.2 These records, including the Inspection Test Plan (ITP) shall be forwarded to the Corporation on completion of works.

15.0 CONTRACTOR'S RESPONSIBILITY

15.1 The Contractor shall supply all necessary plant, equipment, materials and labour, prepare the surface and apply and maintain the protective coating in accordance with this specification.

15.2 The preceding inspection clauses shall not relieve the Contractor of their responsibility to supply materials and perform work in accordance with the requirements of any overriding contract documentation.

Document Revision History					
Sect	**Issue**	**Date**	**Revision Description**	**RVWD**	**APROV**
11	4	20/03/2023	Amend personal qualifications	AO	SS
14	4	20/03/2023	Amend Recording and reporting	AO	SS
3	**5**	**27/03/2026**	**AMPP added**	**CM**	**SS**
5.1	**5**	**27/03/2026**	**Delete Appedix 3 Title**	**CM**	**SS**
11.3	**5**	**27/03/2026**	**Add NACE/AMPP Guideline**	**CM**	**SS**

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