1.0 SCOPE

This document summarises the coating application procedures for aesthetic finish coatings on PVC pipes and fittings.

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 surface preparation specification A6 - Surface Preparation for the application of Protective coatings on Plastics.

2.0 PURPOSE

The purpose of this coating specification is to coat PVC pipes and fittings for aesthetics purposes (e.g. colour coding) and/or provide protection against Ultra Violet (UV) ray induced deterioration. Typical applications include coating of pipework’s connected to the acid tanks etc.

3.0 DEFINITIONS


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

NACE: National Association of Corrosion Engineers.

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.
COATING SPECIFICATION

AESTHETIC FINISH COATING ON ABOVE GROUND PVC PIPES & FITTINGS

COATING SPECIFICATION: K1  ISSUE: 3  Date: JULY 2019

TDFT: Total Dry Film Thickness.

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

4.0 SURFACE PREPARATION

4.1 For surface preparation reference shall be made to Water Corporation surface preparation specification A6 - Surface Preparation for the Application of Protective Coatings on Plastics.

5.0 MATERIALS

5.1 Coating materials used for attaining the specified standard shall be selected in accordance with Appendix 3 of DS-95 - commonly used coatings in potable water and wastewater infrastructures unless approved otherwise by the Team Leader – Asset Durability. This approval is required before coating commences.

5.2 The coating components shall be thoroughly mixed in the specified proportions. Material so prepared shall be used within the “pot-life” period claimed by the manufacturer for the relevant site conditions.

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

5.4 Surfaces to be coated which will become inaccessible after assembly or erection shall be cleaned and painted before they become inaccessible.

6.0 COATING THICKNESS

6.1 The surfaces specified shall be given two or more coats of an approved single pack 100% Water Based Acrylic emulsion coating.

6.2 The application of the two coat system shall be carried out as per the paint supplier recommended procedures. Recommended drying times between coats for on-site conditions shall not be exceeded.

7.0 COATING FINISH

7.1 The finished coating shall be of uniform thickness, color, 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.
7.2 Protective coating colours shall comply with AS/NZS 2700 - Colour Standards for General Purposes. If a suitable approved colour is not available, then the proposed colour shall be referred to the Water Corporation for acceptance prior to use. Reference shall be made to Water Corporation Colour Code Drawing No. EG71-1-1, Rev. E for details of colours to be used for different applications.

8.0 COATING APPLICATOR/PERSONNEL QUALIFICATION

8.1 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.

8.2 Work shall only be carried out by competent personnel.

8.3 The work shall be undertaken by an approved Water Corporation Corrosion Control Panel Services member, unless approved otherwise by the Team Leader – Asset Durability

8.4 Surfaces to be coated which will become inaccessible after assembly or erection shall be cleaned and painted before they become inaccessible.

9.0 INSPECTION AND TESTING OF COATING

9.1 Coatings shall be visually examined for surface defects and any discontinuity arising after curing shall be recorded.

9.2 The results of this test shall be submitted to the Superintendent along with the ITP, other relevant product information and coating application procedures for review a minimum of 10 days prior to commencing work.

10.0 REPAIR OF A DEFECTIVE COATING AND RETESTING

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

10.2 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.

11.0 RECORDING AND REPORTING

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

AESTHETIC FINISH COATING ON ABOVE GROUND PVC PIPES & FITTINGS

COATING SPECIFICATION: K1   ISSUE: 3   Date: JULY 2019

- Environmental conditions;
- Surface preparation;
- Surface profile;
- Coating application; and
- Coating testing.

11.2 To supplement these records, prior to any works commencing, an Inspection Test Plan (ITP) shall be forwarded to the Water Corporation for review a minimum of ten working days prior to the commencement of work.

12.0 CONTRACTOR'S RESPONSIBILITY

12.1 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.

12.2 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.

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