
**SURFACE PREPARATION FOR THE APPLICATION OF
COATINGS ON STAINLESS STEEL**

SPECIFICATION: A2

ISSUE: 4

DATE: NOVEMBER 2022

1.0 SCOPE

The scope of this coating specification applies to operations required for the surface preparation of stainless steel.

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

2.0 PURPOSE

The purpose of this coating specification is to prepare a stainless steel substrate for the application of coating.

3.0 DEFINITIONS

ACA: Australasian Corrosion Association.

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

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

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

NACE: National Association of Corrosion Engineers.

NATA: National Association of Testing Authorities, Australia.

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.

4.0 COATING APPLICATOR/PERSONNEL QUALIFICATION

4.1 Work shall only be carried out by competent personnel.

4.2 The work shall be undertaken by an approved Water Corporation Panel - Protective Coating and Concrete Repair Services member, unless approved otherwise by the Team Leader – Asset Durability.

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- 4.3 The coatings contractor/subcontractor shall nominate a certified coating inspector with NACE or ACA qualification. SSPC and equivalent qualification will require written approval by the Principal. 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.

5.0 ATMOSPHERIC CONDITIONS

- 5.1 Prior to and during surface preparation, the contractor shall record details pertaining to environmental conditions including ambient and surface temperature, relative humidity and dew point.

6.0 SURFACE PREPARATION

- 6.1 Oil or grease shall be removed in accordance with AS/NZS 1627.1.
- 6.2 Lightly whip blast surface using a suitable non-ferrous media e.g. garnet or aluminium oxide, to create a surface profile as required by the respective coating product manufacturer.
- 6.3 Only fresh blast media shall be used. Recycling of used media is not permitted.
- 6.4 When using Australian GMA garnet or equivalent with allowable total chlorides of <10ppm shall be used. The contractor shall provide a test certificate from a NATA accredited laboratory tested in accordance with ISO 11126 -10 confirming the chloride content of the garnet.
- 6.5 Metallic abrasive shall not be used under any circumstances.
- 6.6 Surfaces not required to be coated shall be protected with masking materials, which shall be completely removed by the Contractor after completion of the work.
- 6.7 Welding slag, weld spatter, sharp edges and any other surface irregularities, which may impair the appearance or performance of the coating shall be removed. Sharp edges shall be radiused to a minimum of 2 mm.
- 6.8 The contractor shall maintain records and evidence of the original surface, blast surface, and blast profile. These shall be made available to the Superintendent and/or delegate at the completion of the project.

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7.0 INSPECTION

- 7.1 Assessment of the surface profile height or anchor pattern of the abrasive blast cleaned surface shall be carried out using the Replica Tape method (TESTEX PRESS-O-FILM) as described in AS 3894.5.
- 7.2 The Contractor shall provide the Superintendent (or nominated delegate) adequate prior notice as to when and where the surface preparation and coating operations will be conducted to facilitate all specified inspections.
- 7.3 If recognised as a hold point in the ITP, the coating application shall not be carried out until the Superintendent (or nominated delegate) has accepted the surface preparation.

8.0 CONTRACTOR'S RESPONSIBILITY

- 8.1 The Contractor shall supply all necessary plant, equipment, materials and labour, prepare the surface and apply and maintain the coating in accordance with this specification.
- 8.2 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.
- 8.3 A list of all items to be inspected and the relevant drawing reference shall be forwarded to the Water Corporation Coating Inspector prior to the inspection being undertaken.
- 8.4 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
3	4	17/11/2022	Update definitions	AO	SS
4	4	17/11/2022	Update coating application qualifications	AO	SS
6	4	17/11/2022	Rewording surface preparation	AO	SS

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