



QASF Co. Ltd.

DOCUMENT COVER PAGE

Road No. 12,
Dong Xuyen Industrial Park,
Rach Dua ward,
Vung Tau City,
Vietnam.
Tel/Fax : +84 64 614299

Document Title **Surface Preparation & Coating**

Document Number **STD-06**

Included Forms **Painting Report**

Department **Engineering**

Type **Procedure**

Revision **0**

Date **15 Sep 2023**

Responsible person(s) **Engineering Manager**

APPROVAL

NAME: _____ POSITION: _____

SIGN: _____ DATE: _____



SURFACE PREPARATION & COATING

1 INTRODUCTION

- 1.1 This procedure details the requirements for surface preparations and coating that will be performed by QASF.
- 1.2 QASF will provide competent personnel to carry out the work, together with qualified supervision.
- 1.3 The type of surface preparation and coating system will be recorded on Painting Report (Section 9).
- 1.4 The Engineering Manager is responsible for the implementation of this procedure.

2 REVISIONS

Rev.	Date	Nature of Changes	Approved By
0	15.9.23	Issued for use	NHD

3 EQUIPMENT

- 3.1 Surface Preparation Equipment.
 - 3.1.1 Blasting equipment using approved blasting medium shall be the primary method of surface preparation. Other equipment including power sanders, wire brushes, sand paper are can be used as necessary.
- 3.2 Paint Spraying Equipment.
 - 3.2.1 Spraying equipment will meet the recommendations and instructions set forth by the paint manufacturer for each specific paint or coating application.

4 SURFACE PREPARATION

- 4.1 Prior to surface preparation any surface irregularities including weld spatter, rough capping, weld undercut and welding slag together with sharp or rough edges and burrs, surface laminations or laps will be removed or made smooth. All edges shall be ground to a minimum radius 2mm and flame cut areas shall be ground flush.
- 4.2 Grease or oil contamination will be removed by either wiping or scrubbing the surface with rags or brushes wetted with white spirit or thinners and then wiping down with clean dry cloths. Alternatively proprietary emulsifying agents may be used and the surface then washed down with clean water and allowed to dry



before further preparations and painting.

- 4.3 If required, test surface for soluble salts. If contamination exists, re-wash.
- 4.4 Stainless Steel shall be subject to cleaning in accordance with approved document 'Pickling and Passivation Procedure'.
- 4.5 Surfaces shall be blast cleaned using non-metallic abrasives to a finish as required by the customer requirements or specifications.

5 COATING APPLICATION

- 5.1 All painting will be carried out in accordance with this procedure, the client's contract specifications and with the paint manufacturer recommendations. In the event of divergences, the Quality Assurance Manager will decide the requirements after reference to the paint manufacturer and the client. All paints in any one system will originate from one paint manufacturer.
- 5.2 Particular attention will be paid to the manufacturer's instructions on storage, mixing, thinning and pot life. The paint will only be applied in the manner detailed by the manufacturer and will be applied under the manufacturers recommended condition.
- 5.3 Cleaned surfaces will be coated with the specified primer within 4 hours of cleaning.
- 5.4 All coating materials will be thoroughly stirred with a power mixer for a time sufficient to thoroughly mix the pigments and vehicles. Where pigment separation readily occurs provision will be made for continuous mixing during applications.
- 5.5 Drying/Curing periods between successive coats will be in accordance with the paint manufacturer's recommendations, taking into consideration the prevailing environmental conditions.
- 5.6 Items which have been newly painted shall be allowed to dry in accordance with the manufacturers recommendations. They shall be kept clean and protected until dry.
- 5.7 During the application of each coat all areas, such as corners, edges, welds, small brackets, bolts, nuts and interstices will be pre-coated by brush to ensure that these areas have the minimum specified film thickness, to ensure adequate continuity of the coating system.
- 5.8 Restrictions:
 - a) No coating will be applied when the surfaces are less than 3° C above dew point, when the relative humidity of the air is greater than 85%, when the air temperature is below 10° C or when there is a likelihood of a



change in weather conditions within two hours after coating applications which would result in air temperatures below those specified.

- b) No coating to be applied when surface temperature is greater than 40° C.
- c) No coating will be applied on edges prepared for welding/field welding or within 100 mm of these edges.

6 REPAIR OF DEFECTS

6.1 General

- 6.1.1 Before any coating application, all damage to previous coats will be repaired. All loose paint will be removed to a firm edge, all surface irregularities and contaminations will be removed. Hard glossy surfaces will be abraded to obtain a suitable surface for painting.

6.2 Inadequate Coating Thickness

- 6.2.1 Areas with inadequate coating thickness will be thoroughly cleaned and abraded before additional compatible coatings are applied to meet the required film thickness.

6.3 Coating Damage Not Exposing Steel Surface

- 6.3.1 The coating around the damage area will be chamfered to ensure continuity of the patch coating then thoroughly cleaned and abraded before the relevant coats of the coating system are re-applied to complete the full coating system.

6.4 Coating Damage Exposing Steel Surface

- 6.4.1 The damaged area will be thoroughly cleaned and prepared prior to the full coating system being re-applied. The edges of the damaged area will be chamfered and the re-coating will extend 50 mm into the sound paint work.

7 TESTING

7.1 Ambient/Steel Surface Temperature

- 7.1.1 Steel surface temperature and ambient temperature will be checked and recorded daily (minimum of 2 times).

7.2 Film Thickness

- 7.2.1 The wet film thickness will be spot checked in random areas as an initial indication of the dry film thickness. The dry film thickness of individual coats and of the total coating system will be checked by means of an electronic digital thickness gauge. Calibration of the above equipment will be carried out prior to any checks by using foils relating to the film thickness range specified.



8 PAINTING RECORDS

- 8.1 All information relevant to the surface preparation, application and inspection of the painting system will be recorded on a daily basis by their painting supervisors and inspectors, on Painting Report form QA-F-03-11-1 (Section 8.0).
- 8.2 As a minimum the following information will be recorded on the forms which will be used/present for approval on completion of specific items or areas.
- a) Identification of work.
- a) Environmental conditions, ambient temperature, surface temperature, relative humidity, dew point (minimum 2 times daily).
 - b) Surface preparation used, standard achieved, abrasive type, time of start and finish of work.
 - c) Date and time of application, thickness applied and colour per coat, material used (identified by type and Batch No.) for each coat comprising a system and resulting total dry film thickness.
 - d) The results of inspections and tests.
 - e) Details of any coating repair work, including the cause of the problem is known.

9 FORMS

Painting Report



QASF Co. Ltd.

SURFACE PREPARATION & COATING

Road No. 12,
Dong Xuyen Industrial Park,
Rach Dua ward,
Vung Tau City,
Vietnam.
Tel/Fax : +84 64 614299

REPORT No. _____

Client			
Project No			
Equipment Name			
Serial No		Date:	

GENERAL WEATHER CONDITION

TIME/DATE	DT (°C)	WT (°C)	ST (°C)	RH (%)	DP (°C)	Sunny	Cloudy	Rainy

SURFACE PREPARATION

Time/Date		Average surface profile achieved:
Blast air quality		
Cleaning method		
Cleanliness standard		

PAINT APPLICATION

Coat No	Generic name	Product Name	Specified DFT (µm)
1, 2			
3			
Total			
Coating Layer	1	2	3
Time/Date applied:			
Method of application			
Batch No.: (Base)			
Batch No.: (Curing Agent)			
WFT Average (µm)			
DFT Average (µm)			
Visual Inspection:			

Legend: DT: Dry temperature DP: Dew point DFT: Dry film thickness WT: Wet temperature
RH: Relative humidity T: Surface temperature WFT: Wet film thickness

	NAME	SIGN	DATE
Prepared by: QC Inspector			
Verified by: QC Manager			
Authorized Inspector			