



Toase-ehe Park Sanati Gohar Ofogh
 Petrochemical Co.
**CONCEPTUAL, BASIC and DETAIL DESIGN
 ENGINEERING OF STYRENE PARK OFFSITE**



ARKAN SANAT PAYDAR
 Procurement & Construction

Document Title:
 Painting Procedure For Steel Structure

Rev. R0

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Painting Procedure For Steel Structure

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1. SCOPE

This Procedure covers the minimum requirements for the selection of coating materials, surface preparation, application procedure and inspection for protective coatings to be applied during construction and installation of Steel Structure for **Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co.**

2. REFERENCES

Throughout this Specification the following dated and undated standards/ codes are referred to. These referenced documents shall, to the extent specified herein, form a part of this specification. For undated references, the latest edition of the referenced document (including any supplements and amendments) applies. For dated references, the edition cited applies.

EI027-DMF-VD-QC-PRO-024: Painting Specification

ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS)

ASTM D-3359"Standard Test Methodes for Measuring Adhesion by Tape Test"

ISO (INTERNATIONAL ORGANIZATION FOR STANDARDIZATION)

12944(1998) "Paints and Varnishes-Corrosion Protection of Steel Structures by Protective Paint System"

8501-1(2007) "Rust Levels of Steel Structure and Quality Levels for Preparation of Steel Surfaces for Rust Protecting Surfaces"






SSPC (STEEL STRUCTURE PAINTING COUNCIL)

SSPC-Vol. 1(2008)"Good Painting Practice" SSPC-Vol. 2(2008)"Systems and Specification"SSPC-SP10 (2008)"Sandblasting to Sa 2,5 "

ED-MC-SP-8002-A4)

3. DEFINITIONS

| | |
|------------|-----------------------------------|
| Owner | Polymer Pad Jam Co. |
| MC | Toase-ehe Park Sanati Gohar Ofogh |
| Contractor | HSE |
| Vendor | Arkan Sanat Paydar Co. |

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4.GENERAL

4.1 The Vendor should take into account the atmospheric condition prevailing at the site while selecting the exact painting procedure to be adopted by him.

The term “Painting” referred herein covers rust preventive, fungus / insects’ preventive and decorative organic/ inorganic metallic coating and surface protection of the following:

- a) Structural steelwork including building frames, technological steel structures.
- b) The term “surfaces” used herein shall mean iron carbon steel surfaces unless otherwise specified.

4.2 Paint systems are generally specified by dry film thickness of coat(s) and total dry film thickness of primer, intermediate and topcoat rather than by the number of coats.

4.3 All materials shall be supplied in the manufacturer’s original containers, durably and legibly marked according to relevant Material Specification.

4.4 Fabrication should preferably be complete before surface preparation begins.

4.5 Paint shall not be applied under the following conditions:

- When the temperature of the surface is less than 3°C above the dew point of the surrounding air, and/ or the relative humidity is higher than 80%;
- When the temperature is below 5°C;
- When the surface temperature is higher than 35°C;
- When there is the likelihood of an unfavorable change in weather conditions within two hours after coating;
- When there is a deposition of moisture in the form of rain, condensation, frost, etc., on the surface.






This is likely to occur when the relative humidity is over 80% and the temperature is below 15°C. Each layer of paint shall be allowed to dry for a period of time within the limits prescribed by the paint manufacturer, before the next layer is applied.

4.6 Subsequent layers of a paint system shall have a difference in tint or color.

4.7 Particular attention shall be paid to the painting of corners, edges, welds, etc. especially with respect to the specified minimum dry-film thickness.

4.8 During both application and drying, adequate ventilation shall be provided if the work area is enclosed.

4.9 All surface inaccessible after assembly shall be fully painted before assembly.

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4.10 It shall be the responsibility of the Vendor to coordinate work so that shop primed items are primed and painted with compatible coating, as specified according to Paint System Table.

4.11 Coatings shall be applied by airless spray in exact accordance with this Specification and/ or the manufacturer's instructions.

4.12 No paint shall be used in which the vehicle has set hard and which cannot readily be reincorporated by correct mixing. Similarly, no paint shall be used which has jellified or which has thickened to such an extent that too much thinner is required to brushing consistency.

4.13 Two pack paints shall be carefully mixed in strict accordance with this Specification and/ or manufacturer's instructions. The pot life of such paints shall be carefully noted and any mixed paint which has exceeded its pot life must be discarded irrespective of its apparent condition.

4.14 The application shall leave no sags, runs, marks or other defects.





4.15 Drying and application time between coats shall adhere to the coating manufacturer's recommendations with temperature and humidity conditions taken into account, and shall generally be kept to the minimum in order to prevent contamination between coats. Where contamination occurs between coats, this must be completely removed, generally be washed per manufacturer's recommendation or otherwise with suitable detergent solution and rinsed with clean water. The paint surface shall be dry before over-coated application.

4.16 Any and all holes and surface imperfections shall be cleaned and filled in an approved manner before painting.

4.18 All equipment shall be maintained in good working order. Equipment shall be thoroughly cleaned daily. Worn parts shall be replaced. Effective oil and water separators shall be used and serviced regularly.

All points of damage to paintwork incurred at any stage of the work including site welding operations, shall be re-prepared to the original standard and recoating with the specified priming coat and finish coat to restore the film thickness. In all such instances preparation shall extend 25 mm into the sound paintwork and a further 25 mm of sound paintwork shall be lightly blasted to etch the surface. Repainting shall then cover the prepared surface and the etched paintwork.

4.19 Unless otherwise specified the minimum allowable time before application of intermediate or finish coat shall be three hours.

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4.20 Maximum allowable time between application of intermediate and finish coat shall be as recommended by the paint manufacturer but shall not be less than eight hours.

4.21 Any surfaces to be coated shall be rendered dust-free prior to the application of the prime coat. This shall be accomplished by blowing of the surface with clean dry air or by using an industrial vacuum cleaner.

TABLE 1- DEW POINT DETERMINATION





| DEW POINTS (°C) AT VARIOUS RELATIVE HUMIDITIES | | | | | | | | |
|--|------|------|------|-----|------|------|------|------|
| AIR TEMP. | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |
| -1 | - | - | - | - | -6.5 | -4 | -2 | -1 |
| 4 | - | -6.5 | -4 | -2 | 0.5 | 1.5 | 3.5 | 4.5 |
| 10 | -6.5 | -3.5 | 0.5 | 2 | 3.5 | 5.5 | 8.5 | 10 |
| 15.5 | 0 | 2 | 4 | 8 | 10 | 11.5 | 14 | 15.5 |
| 21 | 3 | 6.5 | 10 | 13 | 15 | 18 | 19.5 | 21 |
| 26.6 | 7 | 12 | 15.5 | 19 | 21 | 23.5 | 25 | 26.5 |
| 32 | 13 | 16.5 | 20.5 | 24 | 25.5 | 28.5 | 30.5 | 32 |
| 38 | 18 | 22 | 25.5 | 29 | 31 | 33.5 | 36 | 38 |

Note:

It is essential to ensure that no condensation occurs on blasted steel or between coats during painting. Air at a given temperature can only contain a certain (maximum) amount of water vapor. This proportion is lower at lower temperatures.

The dew point is the temperature of a given air-water vapor mixture at which condensation starts, since at that temperature its maximum water content (saturation) is reached.

In practice, a safety margin must be kept, whereby the substrate temperature is at least 3°C above dew point.

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5. SURFACE REPARATION

5.1. Pre-blasting preparation

5.1.1 Hard surface layers (e.g. resulting from flame cutting) shall be removed by grinding prior to blast cleaning.

5.1.2 The surfaces shall be free from any foreign matter such as weld flux, residue, slivers, oil, grease; salt etc. prior to blast cleaning. All surfaces should be washed with clean fresh water prior to blast cleaning.

5.1.3 Any oil and grease contamination shall be removed in accordance with SSPC/SSPM Volume 2, grade SP1, prior to blast operations.

5.1.4 Any major surface defects, particularly surface laminations or scabs detrimental to the protective coating system shall be removed by suitable dressing. Where such defects have been revealed during blast cleanings, and dressing has been performed, the dressed area shall be re-blasted to the specified standard. All welds shall be inspected and if necessary repaired prior to final blast cleaning of the area. Surface pores, cavities etc. shall be removed by suitable dressing or weld repair.

5.2. Blast cleaning

5.2.1 Blasting operations shall never be allowed in the vicinity of painting work or near to a wet paint surface or any where that blast abrasive, grit or fall-out shall impinge on a freshly painted surface, or on any uncovered primed surface.





5.2.2 Blast cleaning operations shall not be conducted on surfaces that will be wet after blasting and before coating, when the surfaces temperature are less than 5°C above the dew point, when the relative humidity of the air is greater than 85%, or when the ambient temperature is below 5°C.

5.2.3 The maximum particle size of the abrasives used in blast cleaning shall not be larger than that passing through a 14-mesh screen B.S. Sieve Series. All abrasives shall be free from dust, moisture and salt. Blasting shall be continued till a uniform white metal surface is achieved.

5.2.4 Blast cleaning is permitted only during the day light or under proper lighting.

5.2.5 Blast cleaning shall overlap by a minimum of 25 mm into any adjacent coated areas. Any steel work not primed and/or wetted by rain or moisture shall be re-blasted prior to being painted if rust develops.

5.2.6 The roughness of prepared surface results from primary roughness already present in the initial state and which is exposed by the mechanical preparation methods, in particular by blasting. The roughness

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parameters (the peak-to valley height) give some basis for determining the minimum coat thickness necessary for satisfactory embedment and covering of roughness peaks.

The surface roughness of steel work shall be within 0.1 mm to 0.03 ± 0.005 mm for painting, coating and lining.

5.2.7 Surface preparation specified in the schedule (Appendix A) shall be in accordance with the following Standard, ISO8501-1:

5.2.7.1 Hand Tool Cleaning ST2

5.2.7.2 Power Tool Cleaning and Power Tool touch up of pre-blasted items ST3

5.2.7.3 Light Blast Cleaning (Sweep blast) SA1

5.2.7.4 Near White Metal Blast Cleaning SA2, ½

5.2.7.5 White Metal Blast Cleaning SA3

5.2.8 A qualified well trained operator shall be employed for the blast-cleaning job. The qualification of operator must be approved by client consultant.

5.2.9 Residual shot, grit and dust shall be completely removed after blasting, preferably by vacuum cleaning, but otherwise by oil and water free air blast or fiber brush.






5.2.10 Prepared surfaces should be primed generally within 4 to 6 hours (depends on site conditions) or before visible re-rusting occurs. Cleaned surface shall never be left overnight prior to coating, in such case re-blasting or re-cleaning is necessary.

5.2.11 In this specification, relative equivalent standards of surface preparation quality grade to be adopted in respect of SIS 055900 are presented in Annex-1 for ready reference. Any oil, grease, dust or foreign matter deposited on the surface after preparation shall be removed and care taken that the surface is not contaminated with acids, alkalis, moisture or other corrosive chemicals. The prime coat shall be applied as soon as possible after the surface preparation is completed.

5.3 The acceptable surface preparation quality / grade are described under each paint system. The procedures covered are solvent cleaning, hand tool cleaning, power tool cleaning, blast cleaning, pickling or combination thereof in order to attain desired surface quality as required by the specific primer paint. These are briefly described below.

Solvent Cleaning

The surface is cleaned by wiping, immersion, spraying or vapour contacting of a suitable solvent or washing with an emulsion or alkaline solution or chemical paint stripper. The method effectively removes oil, grease, dirt, soil, drawing compounds, oil paint and other similar foreign matters but does not remove rust, scales, and mill – scales or weld flux. Also hydrocarbon solvents do not

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remove corrosive salts such as chloride and sulphate. Therefore, before application of paint, solvent cleaning is commonly to be followed by other cleaning procedures.

Hand Tool Cleaning





The surface is cleaned by vigorous wire brushing done manually to St-2 quality. Chipping and scraping is usually carried out before wire brushing; oil and grease are removed by solvent cleaning before hand tool cleaning. On welded work, before wire brushing particular care should be taken to remove by blast cleaning, washing with water, phosphate rinsing or power tool cleaning as much welding flux, slag and fume deposit as is possible. This method effectively removes loosely adherent materials but would not affect residues of rust or mill-scales that are intact and firmly adherent.

Power Tool Cleaning

The surface is cleaned by electric or pneumatic tools, such as brushes, sand machines, sand discs, abrasive grinders, chipping, hammers, scales, needle guns and rotary de-scalars to St-3 quality. Oil and grease are first removed by solvent cleaning and heavy rust scale removed prior to use of power tools. The tools are used carefully to prevent excessive roughening of surface and formation of ridges and burrs; also, care is taken to avoid mill scale being burnished to a smooth, slick surface. This method will remove loosely adherent material but would not affect residues of rust, or mill-scales that are intact and firmly adherent.

Blast Cleaning

The surface is cleaned by impingement of abrasive materials, such as graded sand or grit of cast iron, malleable iron, steel or synthetic material at high velocity created by clean and dry compressed air blast. Prior to application of the blast, heavy deposits of oil and grease are removed by solvent cleaning and excessive surface scale removed by hand tool or power tool cleaning. This method will remove loosely adherent materials as well as adherent scales and mill-scales. The extent of removal of adherent scales, depending on the application, is varied and defined by the surface quality grades Sa 1, Sa 2, Sa 2.5 and Sa 3 in the order of increasing cleanliness. Blast cleaning is not recommended for sheet metal works.

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6. PAINT MATERIALS

6.1 The paint system specified herein and listed in (sec 9). for different exposure conditions shall be the minimum acceptable quality of surface protection against the respective environment, provided the paint materials are manufactured from quality products under stringent quality Control. For any proprietary paint formulation, the performance of which has been tested in actual site condition or under simulated conditions in test laboratory, the manufacturer's commendations in all respects shall be adhered to.

7. STORAGE OF PAINT

7.1 All paints shall be stored strictly in accordance with requirements laid down by the paint manufacturer. The storage area shall be well ventilated and protected from sparks, flame, direct exposure to sun or excessive heat, preferably located in an isolated room or in a separate building.

7.2 All paints containers shall be clearly labelled to show at the time of use; the paint identification, date of manufacture, batch number, order number and special instructions in legible form. The containers shall be opened only at the time of use. Paints which have livered, gelled or otherwise deteriorated during storage shall not be used. Paints, for which the shelf-life specified by the manufacturer has expired, shall not be used without inspection and approval by the BUYER.

7.3 Paint shall be stored in a well ventilated room, free from excessive heat or direct rays of the sun and maintained at a temperature between 4°C and 27°C. Open air storage shall be avoided particularly of heavy paints such as primers and undercoats.






8. PAINT APPLICATION

8.1 General

Paint shall be applied in accordance with manufacturer's recommendations as supplemented by this specification. The work shall generally follow (SSPC-PA-1(latest),

Paint generally shall not be applied when the ambient temperature is below 5°C and/or above 45°C; for paints, which dry by chemical reaction, the temperature requirements specified by manufacturer shall be met. Also, paint shall not be applied in rain, wind, fog or at relative humidity of 80 percent and above or when the surface temperature is below dew point resulting in condensation of moisture. Any wet paint exposed to demanding weather conditions shall be inspected after drying and the damaged area repainted after removal of the paint.

Each coat of paint shall be continuous, free of pores and even of film thickness without thin spots.

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The film thickness shall not be so great as to affect detrimentally either the appearance or the service of the paint.

Each coat of paint shall be allowed to dry sufficiently before application of the next coat to avoid damage such as lifting or loss of adhesion. Undercoats having glossy surface shall be roughened by mild sand papering to improve adhesion of subsequent coat. Successive coats of same color shall be tinted, whenever practical, to produce contrast and help identify the progress of work.

The oldest paint of each kind shall be used first.

Temperature of paint may be excessively high or low depending on storage or shipping conditions. If so, warm or cool the paint to a temperature of 10-32°C before mixing and use.

8.2 Air Less Spray Application

The spraying equipment shall be compatible with the paint material and provided with necessary gauges and controls. The equipment shall be cleaned of dirt, dried paint, foreign matter and solvent before use.

The paint shall be applied by holding the gun perpendicular to the surface, at a suitable distance and moved in a pattern to ensure deposition of a uniform wet layer of paint. All runs and sags shall be brushed out immediately; areas not accessible to spray shall be painted by brush.

8.3 Preparation of Paint for Application Mixing





8.3.1.1 Paints shall preferably be mixed by powered mixers and/or shakers. Only small quantities are suitable for hand mixing, and then shall only be mixed by an efficient method such as boxing *. Avoid shaking partly full cans of latex paint, it cause foaming.

8.3.1.2 The paint shall be mixed in a manner which will insure the break-up of all lumps, complete dispersion of pigment and a uniform composition.

8.3.1.3 The lumpy or stiff paste shall be broken up with a mechanical agitator. In some cases with a wide strong paddle made of wood or iron, stirred with a motion from container.

8.3.1.4 Where a skin has formed in the container, the skin shall be cut loose from the sides of the container, removed and discarded. If the volumes of such skins are more than 2% of the remaining paint, the paint shall not be used.

8.3.1.5 Mixing in open containers shall be done in a well ventilated area away from sparks or flames. Paint shall not be mixed or kept in suspension by means of an air stream bubbling under the paint surface.

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8.3.1.6 Dry pigments which are separately packaged shall be mixed into paints in such a manner that they are uniformly blended and all particles of the dry powder are wetted by the vehicle.

8.3.1.7 Pastes shall be made into paints in such a manner that the paste shall be uniformly blended and all lumps and particles broken up to form a homogeneous paint.

8.3.1.8 Tinting pastes or colors shall be wetted with a small amount of thinner, vehicle, or paint and thoroughly mixed. Next, the thinned mixture shall be strained.

Finally, it shall be added to the large container of paint and mixed until the color is uniform.






8.3.1.9 Paint which does not have a limited pot life (time interval) or does not deteriorate on standing may be mixed at any time before using, but if settling has occurred it must be remixed immediately before using.

8.3.1.10 Paint shall not remain in spray pots, painter's buckets, etc. Overnight, but shall be stored in a covered container and remixed before use.

8.3.1.11 Catalysts, curing agents, or hardeners which are separately packaged shall be added to the base paint only after the latter has been thoroughly mixed. The proper volume of the catalyst shall then be slowly poured into the required volume of base with constant agitation. Do not pour off the liquid which has separated from the pigment and then add the catalyst to the settled pigment to aid mixing. The mixture shall be used within the pot life specified by the manufacture. (For example, more than 20 minutes and less than eight hours after mixing are the pot life limits for some chemically cured paints.) Therefore only enough paint shall be catalyzed for prompt use. Most mixed, catalyzed paints cannot be stored, and un-used portions of these shall be discarded at the end of each working day at the expense of the contractor. When specified, special continuous mixing equipment shall be used according to the manufacturer's directions.

8.3.1.12 The drum paints shall be rolled on its side for some minutes before opening. The entire paint content shall be poured into an empty clean drum or can, ensure that no heavy paste remains in the original container. If paste remains, some of paint shall be poured back and the mixture again stirred thoroughly and returned to the bulk.

8.3.1.13 All pigmented paint shall be strained after mixing except where application equipment is providing with strainers. Strainers shall be of a type to remove only skins and undesirable matter but not to remove the pigment. Cheese-cloth of fine metal gauze, approximately 0.15 mm (80 mesh) is recommended as strainer.

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8.3.1.14 When mixing two-component paints, check and remix each component individually. Then blend the two components at low speed until the mixture is completely uniform in color. Often, the two components are supplied in different colors so that a good mix can be readily determined. Do not mix more than a few liters at a time since the exothermic caused by the mixture may be so high as to make the paint solidify in the container.

8.3.1.15 Hand mixing of paints shall only be permitted for containers up to 5 liters. All larger containers shall be mixed by mechanical agitators and brought to a uniform consistency. Where pigment separation readily occurs such as heavy or metallic pigments, prevention shall be made for continuous mixing during application.





8.3.2 Thinning

8.3.2.1 Do not thin the paint unless recommended by supplier or needed for spray application.

8.3.2.2 If thickening of paint prevents proper application by brush, not more than 5% by volume of the correct thinner may be added; for oil-based primers containing red lead, up to 10% by volume is acceptable. For enamels which are applied by spraying, special enamel thinners shall be used. For drum paints and for priming paints, white spirit (mineral turpentine) shall be used as thinner. Emulsion paints normally require thinning up to 12% by volume of clean fresh water. The addition of more water than is necessary to obtain a satisfactory brushing consistency is not allowed.

8.3.2.3 When thinning the paint, first be sure that it is well mixed before adding the thinner. Then thinner shall be added slowly to paint during the mixing process.

8.3.2.4 If the paint is cold, do not add thinner to make application easier. Instead, bring the paint to 10-32°C. Paint heaters can be used to reduce viscosity for spray application, thus avoiding the addition of thinners. Do not apply warm paint to cold steel. Results are best if both are similar in temperature.

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9. PAINT SYSTEM

| ITEM DESCRIPTION | OPERATING TEMP °C | PAINT SYSTEM |
|---|----------------------|-----------------|
| Bolting, Floor Grating, Ladders, Stair Tread, Handrailing, Electrical Fixtures, Structural Steelwork, Fabricated Steelwork, Columns, Vessels, Tanks, Heat Transfer Equipment, Steel Stacks, Piping, Etc. (External Surface & Uninstulated) | UP TO 120°C | 1 |






SYSTEM CODE: 1

| Process | Paint name and treatment | No. of coat | Applicable Notes | RAL Colour | Dry Film Thickness per coat (microns) | |
|--------------|--------------------------|--------------------------------------|------------------|------------|---------------------------------------|-----|
| At shop | Surface preparation | Blast Cleaning (SSPC-SP 10) Sa 2-1/2 | | A | N/A | -- |
| | Primer | Zinc Ethyl silicate | 1 | - | - | 75 |
| | Intermediate | EPOXY POLYAMIDE | 1- Tie coat | - | - | 30 |
| | | High Build Epoxy | 2- Mid Coat | - | - | 125 |
| | Finish | Acrylic polyurethane | 1 | - | 7038 | 75 |
| Total | | | | | 305 μm | |

Applicable Notes:

A. Unless otherwise specified, the surface profile after blast cleaning shall have a min/max height of 30-75 microns (Rz).

Header walk way & support mechanism & Bolts/Nuts shall be hot dip galvanized according to ASTM A123.

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10. QUALITY CONTROL AND TESTING

10.1 Manufactures of all materials shall supply test certificates of all tests performed and a certificate of compliance stating that the material meets the requirements of the applicable specifications.

10.2 Test shall ensure that the quality of the surface coating is in accordance with that specified and shall include, but shall not be limited to, thickness testing, adhesion testing, abrasion testing, solvent testing, etc.

10.3. HUMIDITY CHECK

The air's relative humidity shall be measured with a digital humidity gauge. Surface preparation and/or paint application operations shall not commence until relative humidity is less than the limits set in paragraphs 5.2. Relative humidity shall be measured and recorded a minimum of six (6) times a day whence two (2) times before commencement of work. Moisture on the surface being prepared or painted shall be measured every day with a surface moisture indicator before beginning surface preparation operations or applying a coat of paint.

10.4. ROUGHNESS CHECK

A Rugotest shall be used in determining anchor pattern of sand blasted surfaces, when a fixed anchor pattern rang is required by a specific painting system.






10.5 THICKNESS CHECK

Dry paint thickness shall be measured with a magnetic probe, such as Micro test or Elcometer or equivalent. It is imperative that the magnetic probe be calibrated for each thickness of coating steel support with a non-magnetic block whose thickness is as close as possible to the coating being checked.

Each coat's thickness and total thickness shall be checked. Make five (5) separate spot measurements spaced evenly over each section of the structure 10 square meters in area (divide the entire surface in 10 square meter areas).

On each spot, make 3 readings by moving the probe a short distance for each new gage reading. Discard any unusually high or low gage reading that cannot be repeated consistently; Take the average of the three (3) gage readings as spot measurement.

10.6 In order to achieve the specified dry film thickness, frequent checks of wet film thickness

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shall be carried out during the paint application with film thickness gauges such as the elcometer wheel or comb type.

10.7 In the event of the film thickness not meeting the specified requirements, additional coat (s) of the paint concerned shall be applied in compliance with the specified requirements.

Test method and acceptance criteria of DFT checking shall be in accordance with SSPC PA2. The average of measured dry film thickness shall not be less than specified in item 9 of this procedure.

10.8 ADHERENCE CHECK

Paint adherence shall be checked as per ASTM method D3359. Method A (Xcut) shall be used for paint film thicker than 125 microns, method B (lattice pattern) shall be used for paint films up to 125 microns.

Test method A: An X-cut is made in the film to the substrate; pressure-sensitive tape is applied over the cut and then removed. Acceptable rating are 4A (Trace peeling or removal along incisions or at their intersections).

Recoating after this destructive test is at the Applicator's expense.

Coating film should be inspected visually after each application and before application of the next coat in order to verify that the whole surface is free of defects as:

- Mud-cracking
- Inclusion and cleanliness
- Holidays
- Bubble
- Mechanical damage
- Runs/sags
- Over spray





10.9 EXTENT OF INSPECTION

In view of the final acceptance, the extension of the inspection shall be as here in after indicated and shall be referred to the following steps of work:

Primed surfaces Complete painted surfaces. Paint application shall not be started before previous coat/preparation is inspected and approved.

10.10 REPAIR OF DEFECTS OR DAMAGE

Any defect or damage that may occur shall be repaired before the application of further coats and

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where necessary the particular surface (s) made paint free. Remedial work shall be carried out prior to packing for shipment.





Areas where due to inadequately prepared surfaces, solvent entrapment, excessive application of prime and/or finish coats, etc. the tested paint system consistently fails to meet the required test standards for adhesion/ cohesion, the contractor shall remove the affected area by blast cleaning and shall reapply the full paint system to meet the required standard.

Areas which are to be over coated shall be thoroughly cleaned free from grease, oil and other foreign matter and shall be dry. The surfaces shall then be prepared to the standard as originally specified (for large damaged areas), or prepared to the highest possible standard using mechanically operated tools (for small local damaged spots up to 1 m²).






Subsequently additional compatible coats shall be applies, until they meet the specification. These additional coats shall blend in with the final coating on adjoining area.

When factory painted or painted surfaces have been marked in handling, the damaged paint and non-adherent paint shall be removed and the surface thoroughly cleaned.

The edges on the damaged area shall be smoothed. Surface preparation shall extend approximately 5 cm into the sound coat. The primer and finishing coats shall be applied in accordance with Article 8.

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11. PAINTING REPORT FORM

|   | |  PAINTING INSPECTION REPORT | |   | | | | |
|---|-------------------------------------|--|--------------------------|---|-------------------------------------|------------|-----|-----|
| Project: | | Standard: sspc | | Page 1 of 1 | | | | |
| CLIENT: | | Report Date: | | Report No.: | | | | |
| MANUFAC.: ASP | | ITEM No.: | | | | | | |
| Inspector: | | REQ. No.: | | | | | | |
| Surface Preparation | | | | | | | | |
| Inspection Program: | | | | | | | | |
| Shot Blasting | <input type="checkbox"/> | Chemical | <input type="checkbox"/> | Other | <input type="checkbox"/> | | | |
| Sand Blasting | <input checked="" type="checkbox"/> | Mechanical | <input type="checkbox"/> | as Welded | <input type="checkbox"/> | | | |
| Shot | <input type="checkbox"/> | Corondum | <input type="checkbox"/> | Steam | <input type="checkbox"/> | | | |
| Acid | <input type="checkbox"/> | | | | Sand | | | |
| Sa 1 | <input type="checkbox"/> | Sa 2 | <input type="checkbox"/> | Sa 2 1/2 | <input checked="" type="checkbox"/> | | | |
| Sa 3 | <input type="checkbox"/> | St 2 | <input type="checkbox"/> | St 3 | <input type="checkbox"/> | | | |
| Examination Method: Additional Test | | | | | | | | |
| Note: Internal Surface Accurately Drained & Dry | | | | | | | | |
| ردیف | DWG | Qty | ZINC Thk | High Build Thk | Polyurethane | Total Thk | Acc | Rep |
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| Inspector | | | QC Manager | | | TPI | | |
| Name: | | | Name: | | | Name: | | |
| Date: | | | Date: | | | Date: | | |
| Sign: | | | Sign: | | | Sign: | | |