

**DIVISION 09**

**FINISHES**

**Part 1 General**

**1.1 DESCRIPTION**

- .1 This section specifies requirements for surface preparation, priming and finish painting for interior and exterior surfaces.
- .2 The following work is included except as otherwise noted:
  - .1 Doors
  - .2 Door Frames
  - .3 Wet well vents
  - .4 Pipe hangers
  - .5 Galvanized metal
  - .6 Wood
  - .7 Plastic surfaces including frp; pvc; abs
  - .8 Repair of damage to shop paint and shop primer
  - .9 Shop primed items.
- .3 Painting is not required on the following:
  - .1 Piping - insulated and non-insulated
  - .2 Ductwork - insulated and non-insulated
  - .3 Carbon steel, cast iron and ductile iron
  - .4 Machinery, equipment, valves, couplings, fittings, accessories
  - .5 Stainless steel - (surface treatment only)
  - .6 Brass
  - .7 Aluminum hatches, aluminum checker plate
  - .8 Interiors of pipes and ductwork (unless specified in Division 40).
  - .9 Submerged galvanized metal

**1.2 RELATED WORK**

- .1 Section 05 50 00 – Metal Fabrications
- .2 Section 08 11 00 - Hollow Steel Doors and Frames

**1.3 QUALITY ASSURANCE**

- .1 Use products manufactured by manufacturers listed in this section as approved manufacturers.
- .2 Products shall meet or exceed the requirements of applicable specified CGSB Specifications.
- .3 Where applicable, comply with the requirements of "Canadian Painting Contractor's Association (CPCA) Specifications Manual."
- .4 Where applicable, comply with the requirements of the Steel Structures Painting Council - Volume 1 Good Painting Practice and Volume 2 Systems and Specifications.
- .5 Refer to Section 01 45 00 - Quality Control.

**1.4 APPROVED PAINT MANUFACTURERS**

- .1 Approved manufacturer's list:
  - .1 International Paints (Canada) Ltd.

- .2 The Glidden Company (Canada) Ltd.
- .3 PPG Canada Inc.
- .4 Pratt & Lambert Ltd.
- .5 General Paint Ltd.
- .6 Cloverdale Paint
- .7 Benjamin Moore & Co. Ltd.
- .8 C.I.L. Paints

## **1.5 PRODUCT DELIVERY, STORAGE AND HANDLING**

- .1 Products shall be delivered to the job site in manufacturer's original sealed containers, with labels and data sheets showing manufacturer's name and address, product name or number, paint type, colour, detailed application instructions and warnings concerning any harmful or toxic ingredients.
- .2 Products shall be stored and handled in accordance with manufacturer's recommendations.
- .3 Storage areas shall be kept clean and neat with thorough precautions taken against fire. Materials susceptible to freezing shall be stored in a heated area.

## **1.6 REGULATIONS**

- .1 Perform work under observation of Safety Regulations of Manitoba Workplace Health and Safety.
- .2 Abide by the regulations of Manitoba Conservation with regard to public water supplies and waste disposal.

## **1.7 JOB CONDITIONS**

- .1 Interior Temperature - maintain at minimum 15°C for 24 hours before and during application and curing.
- .2 Ventilation - adequately ventilate and maintain dust free.
- .3 Lighting - provide uniform and bright lighting where coatings are being applied.
- .4 Exterior Temperature - apply coatings only when temperature is above 10°C.
- .5 Precipitation - do not apply coatings during precipitation or when precipitation is imminent.
- .6 Wind - do not apply coatings when wind conditions may cause damage due to dust and debris.

## **1.8 COORDINATION**

- .1 Surface preparation and primers shall be compatible with finish coats.
- .2 Determine and be responsible for the compatibility of shop primed and shop painted surfaces to receive additional paint coatings as specified herein.
- .3 Coordinate the work with other trades to ensure that a complete and finished work is provided.
- .4 Do not proceed with painting items that are not prepared, primed or pre-painted in accordance with Specifications.

**1.9 MAINTENANCE MATERIALS**

- .1 Leave at the site a quantity of paint of each colour, for touch up service.
- .2 Containers shall be sealed and labelled.
- .3 Quantity of each colour required: 1 litre.

**1.10 PROTECTION**

- .1 Prevent splashing and dropping of paint on adjacent surfaces and on pre-finished surfaces.
- .2 Remove all surface plates, hardware and fastenings for painting and replace after paint is cured.

**Part 2 Products**

**2.1 MATERIALS**

- .1 Paint, stain, enamel and fillers for various services shall be in accordance with CPCA Manual and the Schedule of Painting Systems.
- .2 All materials used in surfaces that will be in contact with potable water shall be acceptable for this service in accordance with the Food and Drug Act of Canada.

**2.2 MIXING**

- .1 Paints shall be ready mixed unless specified otherwise.
- .2 Thinning is permitted only where specified and with the Contract Administrator's approval.

**2.3 COLOUR SCHEDULE**

- .1 General colour schedules will be provided by the Contract Administrator.

**2.4 SCHEDULE OF PAINTING SYSTEMS**

- .1 A schedule is included in Part 3 - Execution.
- .2 The Schedule of Painting Systems is prepared to indicate conditions in various areas, the materials to be used and the coating thicknesses in micrometres - dry film thickness.
- .3 The products and painting systems of the Glidden Company and of Valspar Inc. are used as standards in the Schedule of Painting Systems.

**Part 3 Execution**

**3.1 GENERAL SURFACE PREPARATION**

- .1 Surfaces shall be dry, clean, free from grease, oil or other contaminants.
- .2 Prepare surfaces in a manner that meets or exceeds the paint manufacturer's recommendations for surface preparation for the material being painted and for the expected service.

- .3 If the surface to be finished cannot be put into acceptable condition for finishing by customary means, notify the Contract Administrator in writing.

### **3.2 PREPARATION OF IRON AND STEEL SURFACES**

- .1 Remove oil, grease or other contaminants by commercial cleaner, as required.
- .2 In general, prepare metal surfaces exposed to atmosphere to SSPC-SP-6 Commercial Blast Clean.
- .3 In general, prepare metal surfaces to be immersed continuously or intermittently or to be exposed to excessive moisture, to SSPC-SP-10 Near White Blast Clean.
- .4 All weld flux to be power tool cleaned and washed. Level of weld surface preparation to correspond to that of the surface on which it is found.

### **3.3 PREPARATION OF GALVANIZED STEEL SURFACES**

- .1 Roughen surface chemically using primers specified in the Schedule of Painting Systems or lightly abrasive blast.

### **3.4 PREPARATION OF WOOD SURFACES**

- .1 Sand surfaces to a smooth finish.
- .2 Dry surfaces as necessary to less than 15 percent moisture content.
- .3 Fill holes, splits and scratches with plastic wood filler.
- .4 Remove sap with solvents and coat knots with shellac.

### **3.5 PREPARATION OF PREVIOUSLY PAINTED SURFACES**

- .1 Sand or otherwise prepare the surfaces for proper bonding of the new coating.
- .2 Check for compatibility of new coating to be applied over previous coatings.

### **3.6 MIXING PAINTS**

- .1 Thoroughly and uniformly mix by automatic shaking devices, power stirrers or proper mixing by hand and boxing.
- .2 Thin paint only when specifically required using thinning material compatible with the paint.

### **3.7 APPLICATION**

- .1 Refer to SSPC-PA-1 and to the Canadian Painting Contractor's Association Manual as a general reference to application techniques, requirements and precautions.

### **3.8 SHOP-APPLIED PRIMER AND FINISH**

- .1 Items which have shop finish have been specified in other sections of the specifications. Touch up is required if finish is damaged.
- .2 Items which have shop applied primers require touch up of primers followed by finish coats as specified.

**3.9 ITEMS TO BE PAINTED**

- .1 Exterior Painting
  - .1 Doors and door frames.
  - .2 Flashing, trim and exposed galvanized items.
- .2 Interior Building
  - .1 Woodwork
  - .2 Doors and frames
  - .3 Miscellaneous metal (not including stainless steel or aluminum)
- .3 Piping and Equipment
  - .1 Supports and couplings.
  - .2 Plastic piping but not brass valves and brass fittings.
  - .3 Shop primed equipment that requires finished coats.
- .4 Miscellaneous
  - .1 Both sides and edges of panel and equipment back boards.

**3.10 SCHEDULE OF PAINTING SYSTEMS**

- .1 Dry film thickness in micrometres.
- .2 Abbreviations: P-primer, I-Intermediate Coat, F-Finish Coats.

System Number	Surface or Item	Surface Preparation	Manufacturer Number and Paint Type	Number of Coats	Dry Film Thickness
1.	Interior Wood Work and Trim	As Specified	Interior Alkyd Undercoat Cloverdale Paint 15100 Interior Alkyd Semi-Gloss Cloverdale Paint 13113	1(P) 1(I) 1(F)	1.5-2 1.5-2 1.5-2
2.	Carbon Steel - door frames - steel doors - wet well vents - hangers - couplings - no abnormal conditions	SSPC-SP-3 Power Tool Clean	Cloverdale Paint 83040 Universal Phenolioc Primer Cloverdale Paint 11103 Marine Alkyd gloss enamel	(1)(P) (2)(F)	1-2 1.5-2
3.	Plastic Pipe	Clean and abrade slightly	Clovocoat 300 Hi Build Epoxy	(2)	4-6
4.	Touch up Galvanized Metal	--	Clovazinc 1 83001 single Pack zinc Primer	(1)	1.5-2.5

**END OF SECTION**

**Part 1 General**

**1.1 RELATED SECTIONS**

- .1 Section 04 43 00 – Stone Masonry

**1.2 MOCK-UP**

- .1 Construction mockup in accordance with Section 01 45 00 - Quality Control.
- .2 Before full-scale application, apply graffiti resistant coatings to samples of substrate materials to be used on actual project to determine coverage rates, compatibility, effectiveness, and aesthetics.
- .3 Apply graffiti resistant coatings in accordance with manufacturer’s written instructions. Allow 5 days curing time prior to applying graffiti paint to test samples. Apply graffiti paint to test samples and allow at least 24 hours longer for paint to cure.
- .4 Apply manufacturer’s recommended cleaner to test for ease of removal of graffiti. Repeat cycles of cleanings as directed by Contract Administrator.
- .5 Do not proceed with coating work until Contract Administrator has reviewed and accepted sample application.

**1.3 SUBMITTALS**

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit manufacturer's product data for specified graffiti resistant coatings and cleaners, specifications and application instructions. Submit description for protection of surrounding areas and non-masonry surfaces, surface preparation, application, and final cleaning.

**1.4 ENVIRONMENTAL CONDITIONS**

- .1 Maintain ambient and structural base temperature at installation area within limits specified by coating manufacturer.
- .2 Apply coating during dry weather.
- .3 Do not apply coating to wet or damp surfaces.

**1.5 PROTECTION**

- .1 Protect plants and vegetation that might be damaged by coating.
- .2 Protect surfaces not intended to have application of coatings.
- .3 Provide adequate ventilation or isolation measures to protect against toxic fumes.

**Part 2 Products**

**2.1 MATERIALS**

- .1 Graffiti-resistant coating: one component, water based, non-sacrificial, clear penetrating sealer.
  - .1 Acceptable material: Sika Anti-Graffiti Sealer; Fabrishield Paint Repellent; Professional Water Sealant & Anti-Graffitiant.

**Part 3 Execution**

**3.1 PREPARATION**

- .1 Prepare and clean substrate surfaces in accordance with coating manufacturer's printed instructions.
- .2 Mix and prepare coatings to manufacturer's instructions.
- .3 Take moisture tests on substrates to receive coating to ensure moisture levels are within limits specified by coating manufacturer.

**3.2 APPLICATION**

- .1 Apply coating using brush, roller or low pressure spraying apparatus, in accordance with manufacturer's printed instructions.
- .2 Apply at manufacturer's recommended coverage rates for substrate. Adjust for substrate porosity and absorption characteristics.
- .3 Apply in uniform, even coats to fully wet substrate, without flooding or rundowns.
- .4 Allow area to dry completely before applying additional coats.

**3.3 SCHEDULE**

- .1 Apply graffiti-resistant coating to exterior stone masonry.

**END OF SECTION**