

Part 1 General

1.1 REFERENCES

- .1 Master Painters Institute (MPI)
 - .1 MPI Architectural Painting Specifications Current Edition.

1.2 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit product data and instructions for each paint and coating product to be used.

1.3 PRODUCTS DELIVERY, STORAGE, AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Provide and maintain dry, temperature controlled, secure storage.
 - .2 Store painting materials and supplies away from heat generating devices.
 - .3 Store materials and equipment in well ventilated area within temperature as recommended by manufacturer.
- .4 Fire Safety Requirements:
 - .1 Supply (1) 9 kg Type ABC dry chemical fire extinguisher adjacent to storage area.
 - .2 Store oily rags, waste products, empty containers and materials subject to spontaneous combustion in ULC approved, sealed containers and remove from site on a daily basis.
 - .3 Handle, store, use and dispose of flammable and combustible materials in accordance with National Fire Code of Canada requirements.

1.4 SITE CONDITIONS

- .1 Heating, Ventilation and Lighting:
 - .1 Provide heating facilities to maintain ambient air and substrate temperatures above 10°C for 24 hours before, during and after paint application until paint has cured sufficiently.
 - .2 Provide continuous ventilation for seven days after completion of application of paint.
 - .3 Provide temporary ventilating and heating equipment to meet minimum requirements.
 - .4 Provide minimum lighting level of 323 Lux on surfaces to be painted.

- .2 Surface and Environmental Conditions:
 - .1 Apply paint finish in areas where dust is no longer being generated by related construction operations or when wind or ventilation conditions are such that airborne particles will not affect quality of finished surface.
 - .2 Apply paint to adequately prepared surfaces and to surfaces within moisture limits.
 - .3 Apply paint when previous coat of paint is dry or adequately cured.

Part 2 Products

2.1 MATERIALS

- .1 Paint materials shall be listed on the current edition of the MPI Approved Products List. Where selection of finishes from MPI Approved Products List is limited, selection of alternate materials will be at the option of the Departmental Representative.
- .2 Provide paint materials for paint systems from single manufacturer.
- .3 Conform to latest MPI requirements for interior and exterior painting work including preparation and priming.

2.2 COLOURS

- .1 Colours to match existing.
- .2 Second coat in three coat system to be tinted slightly lighter colour than top coat to show visible difference between coats.

2.3 MIXING AND TINTING

- .1 Perform colour tinting operations prior to delivery of paint to site.
- .2 Use and add thinner in accordance with paint manufacturer's recommendations.
 - .1 Do not use kerosene or similar organic solvents to thin water-based paints.
- .3 Thin paint for spraying in accordance with paint manufacturer's instructions.

2.4 GLOSS/SHEEN RATINGS

- .1 Paint gloss shall be defined as the sheen rating of applied paint, in accordance with the following values:

Gloss Level	Finish	Units @ 60°	Units @ 85°
G1	matte or Flat	0 to 5 max.	10 Max
G2	velvet	0 to 10	10 to 35
G3	eggshell	0 to 25	10 to 35
G4	satın	20 to 35	35 min.
G5	semi-gloss	35 to 70	
G6	gloss	70 to 85	
G7	high gloss	> 85	

- .2 In General Gloss level ratings of painted surfaces shall be:
 - .1 Exterior: Gloss finish in all areas.
 - .2 Interior: Gloss finish in all areas.

Part 3 Execution

3.1 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and data sheet.

3.2 GENERAL

- .1 Perform preparation and operations for interior painting in accordance with MPI Architectural Painting Specifications Manual except where specified otherwise.
- .2 Apply paint materials in accordance with paint manufacturer's written application instructions.
- .3 Review all steel to be painted to ensure that all steel has been ground, sanded, body filled, sealant applied and is ready for painting.
 - .1 Do not paint until ready.

3.3 PREPARATION

- .1 Remove electrical cover plates, light fixtures, surface hardware on doors, bath accessories and other surface mounted equipment, fittings and fastenings prior to undertaking painting operations.
 - .1 Identify and store items in secure location and re-installed after painting is completed.
- .2 Protection:
 - .1 Protect existing building surfaces and adjacent structures from paint spatters, markings and other damage by suitable non-staining covers or masking.
 - .1 If damaged, clean and restore surfaces as directed by Departmental Representative.
 - .2 Protect items that are permanently attached.
 - .3 Protect factory finished products and equipment.
 - .4 Protect passing pedestrians, building occupants and general public in and about the building.
- .3 Clean and prepare surfaces in accordance with MPI Architectural Painting Specification Manual requirements.
- .4 All rust from structural steel, miscellaneous metals, pipes, sprinkler pipes, etc shall be removed by the painter, and primed before painting.

3.4 APPLICATION

- .1 Conform to manufacturer's application instructions unless specified otherwise.
- .2 Where possible, prime non-exposed surfaces of new wood surfaces before installation. Use same primers as specified for exposed surfaces.
- .3 All structural steel, miscellaneous metals and other items which have factory primer to be re-primed on site by the painter.
- .4 Sand and dust between coats as required to provide adequate adhesion for next coat and to remove defects visible from a distance up to 1000 mm
- .5 Apply coats of paint continuous film of uniform thickness.
 - .1 Repaint thin spots or bare areas before next coat of paint is applied.
- .6 Allow surfaces to dry and properly cure after cleaning and between subsequent coats for minimum time period as recommended by manufacturer.
- .7 Finish surfaces both above and below sight lines as specified for surrounding surfaces, including such surfaces as tops of interior cupboards and cabinets and projecting ledges.
- .8 Finish top, bottom, edges and cutouts of doors after fitting as specified for door surfaces.

3.5 INTERIOR PAINT AND COATING SYSTEMS

- .1 Provide interior paint products with a VOC range 151 g/L.
 - .1 Where selection of finishes from MPI Approved Products List is limited, selection of alternate materials will be at the option of the Departmental Representative.
- .2 Interior painting systems to be based on MPI Premium grade unless noted otherwise.
 - .1 The following is list of principal items only.
 - .2 All exposed surfaces are to be painted.
 - .1 Surfaces not included in this schedule shall be painted at the discretion of the Consultant at no extra cost
- .3 **Brick Masonry Units:**
 - .1 **EXT 4.1D** – Epoxy – Gloss
 - .1 Three (3) coats epoxy
- .4 **Concrete Masonry Units:**
 - .1 **INT 4.2D** - HIPAC Latex Finish:
 - .1 One coat MPI #4 Block Filler
 - .2 Two coats HIPAC Latex.
 - .2 **INT 4.2G** - Epoxy (tile-like) finish as scheduled:
 - .1 One coat MPI #116 epoxy block filler,
 - .2 Two finish coats epoxy.

- .5 **Structural Steel:** overhead and structural members; columns, beams, joists, etc. and adjacent fabrications.
 - .1 **INT 5.1C** - Waterborne Dry Fall Finish:
 - .1 One coat: Primer
 - .2 One coat: Waterborne Dry Fall MPI #118.
 - .2 **INT 5.1K** – Epoxy Modified latex
 - .1 One coat: Rust inhibitive primer
 - .2 Two coats: Epoxy Modified Latex, Int.
- .6 **Metal Fabrications - Site finishing:** including stairs, guards, channel frames, railings, ladders, vanity support brackets, etc.
 - .1 **INT 5.1F** – Polyurethane, Pigmented
 - .1 One coat: Epoxy primer
 - .2 Two coats: Polyurethane
- .7 **Galvanized Metal: miscellaneous overhead steel pipes, decking, ducts, conduit, etc.**
 - .1 **INT 5.3M** - Waterborne Dry Fall Finish:
 - .1 Wash all ductwork and piping to remove grease and oil.
 - .2 One coat: Primer
 - .3 Two coats: Waterborne Dry Fall MPI #133.
- .8 **Galvanized Metal: interior steel man doors and frames etc.**
 - .1 **INT 5.3K** – W.B. Light Industrial Coating
 - .1 One coat: Waterborne Primer
 - .2 Two coats: W.B. Light Industrial Coating
- .9 **Dressed Lumber: Interior Finish Carpentry and Millwork for Clear Finish:**
 - .1 Shop Finish:
 - .1 **INT 6.3K** - Polyurethane Varnish Finish:
 - .2 Minimum three coats clear polyurethane finish.
- .10 **Plywood Mounting Boards: electrical room.**
 - .1 **INT 6.4P** - Fire Retardant Pigmented:
 - .1 Apply to ULC approved procedures.
 - .2 Two coats Fire Retardant Pigmented
 - .3 Verify colour with Architect.

- .11 **Gypsum Board - Dry Areas:** Drywall surfaces, cement board, other wall and ceiling panels inc. wall-mounted equipment to be painted-out.

- .1 **INT 9.2B - HIPAC Latex:**
.1 One coat Latex Primer Sealer,
.2 Two coats HIPAC Latex.

- .12 **Gypsum Board - Wet Areas, Washrooms, Kitchen, Laundry:**

- .1 **INT 9.2E – Epoxy-("Tile Like")**
.1 One coat primer / sealer
.2 Two finish coats Epoxy.

3.6 FLOOR PAINT COATING SYSTEMS

- .1 High performance, multi-purpose, surface tolerant, two-component, 94% solids, chemically- cured high-solids epoxy coating for industrial or high performance architectural coating (HIPAC) applications.
.1 Prepare surface by Acid etching or other means as approved by manufacturer.
.2 Three (3) coats; Apply at a rate of 6 -8 mils (150 – 200 microns) dry equivalent to minimum 7.8 mils (195 microns) wet.
.3 Anti-slip finish.

3.7 EXTERIOR PAINT COATING SYSTEMS

- .1 **Galvanized and non-galvanized steel and Metal:** Steel structure, fabrications, gates and fences, doors and frames, all rooftop equipment and piping, etc.

- .1 **EXT 5.3L - Polyurethane, Pigmented**
.1 One coat: Epoxy primer
.2 Two coats: Polyurethane

- .2 **Galvanized Steel Doors and Frames:** doors and frames,

- .1 **EXT 5.3D - Polyurethane, Pigmented**
.1 One coat: Vinyl Wash Primer
.2 One coat: Epoxy
.3 Two coats: Polyurethane

- .3 **Wood:**

- .1 **EXT 5.3B - Alkyd Finish:**
.1 One coat non-cementitious primer,
.2 Two finish coats alkyd.
.2 **EXT 6.2H –Clear (2 component) polyurethane finish.**
.1 2 coats.

3.8 MECHANICAL AND ELECTRICAL EQUIPMENT

- .1 Paint all exposed conduits, piping, hangers, ductwork and other mechanical and electrical equipment with colour and finish to match adjacent surfaces, except as indicated.
- .2 Touch up scratches and marks on factory painted finishes and equipment with paint as supplied by manufacturer of equipment.
- .3 Properly prepare metal to remove oils etc prior to painting.
- .4 Do not paint over nameplates.
- .5 Keep sprinkler heads free of paint.
- .6 Paint interior of all grill and vents flat black.
- .7 Paint all roof top equipment.
- .8 Paint all bollards safety yellow.

3.9 MECHANICAL ELECTRICAL AND SERVICE ROOMS

- .1 Paint all housekeeping pads, and concrete floors, step / stairs with Floor Paint Coating System specified under 3.6 above.
- .2 Paint safety yellow line around all housekeeping pads top and side 100 mm wide and step/ stair nosing with Floor Paint Coating System specified under 3.6 above.
- .3 Paint ladders in mechanical room safety yellow with Floor Paint Coating System specified under 3.6 above.

3.10 SITE TOLERANCES

- .1 Walls: no defects visible from a distance of 1000 mm at 90 degrees to surface.
- .2 Ceilings: no defects visible from floor at 45 degrees to surface when viewed using final lighting source.
- .3 Final coat to exhibit uniformity of colour and uniformity of sheen across full surface area.

3.11 RESTORATION

- .1 Clean and re-install hardware items removed before undertaken painting operations.
- .2 Remove protective coverings and warning signs as soon as practical after operations cease.
- .3 Remove paint splashings on exposed surfaces that were not painted. Remove smears and spatter immediately as operations progress, using compatible solvent.
- .4 Protect freshly completed surfaces from paint droppings and dust. Avoid scuffing newly applied paint.

END OF SECTION