
1.0 GENERAL

- 1.1 Conditions
- 1.2 General Information
- 1.3 Related Work
- 1.4 References
- 1.5 Submittals
- 1.6 Qualifications (P.Q.)
- 1.7 Handling and Storage
- 1.8 Job Conditions
- 1.9 Waste Treatment

2.0 PRODUCTS

- 2.1 General
- 2.2 Materials
- 2.3 Mixes and Colouring

3.0 EXECUTION

- 3.1 Coordination
- 3.2 General
- 3.3 Preparation of Surfaces
- 3.4 Application
- 3.5 Cleaning

4.0 PAINTING SYSTEMS

- 4.1 Acceptable products

1 - Issued for Tender (2015-05-20)

Prepared by: P.D.P.	Reviewed by: R.S.	Approved by : M.S.
---------------------	-------------------	--------------------

1.0 GENERAL

1.1 Conditions

- .1 Division 01 – General Requirements shall be read in conjunction with and shall govern Section.
- .2 **Acceptable materials or products:** When materials or products are prescribed by their trademark, consult **Instructions to Bidders** regarding the request for approval of materials or substitutes.

1.2 General Information

- .1 This Section covers all materials, equipment, tools and labour required for the supply, surface preparation and execution of all finish painting.
- .2 All existing metal surfaces affected by the works, primed or not, galvanized or zinc wiped, whether or not indicated on the drawings or specifically specified, shall be painted, unless otherwise indicated.
- .3 All structural exposed items the works shall be painted. Prime coats of concealed structural items shall be touched up as required. Surfaces of galvanised steel elements shall also be touched up.
- .4 All new stainless steel, aluminum and galvanized or prepainted items shall not be painted.
- .5 See **Mechanical** and **Electrical** for electromechanical elements to be painted.
- .6 The following painting work is described in other Sections:
 - .1 Shop primed metallic elements: **Section 05 50 00**.
- .7 Factory applied paint finishes shall comply with the prescriptions of this Section.
- .8 See **Painting Systems** at the end of this section for painting systems included.

1.3 Related Work

- .1 All Sections where painting is required, or where adjacent surfaces shall be painted.

1.4 References

- .1 Comply with all standards mentioned in this specification, unless more stringent requirements are given herein.
- .2 See **Section 01 41 00** for legend of standards.

1.5 Submittals

- .1 Submit the documents and elements as per **Section 01 33 00**, taking also into consideration the following precisions:
 - .1 Product samples (P.S.): submit sample of each type of primer, paint and colour.
-

- .2 Extra materials (E.M.): supply 4 L can of each type and colour of paint.

1.6 **Qualifications (P.Q.)**

- .1 The work of this Section shall be done by skilled labour and in accordance with the best practice and the instructions of the manufacturer of the products being used.
- .2 The installer should be a company recommended by the product manufacturer(s).
- .3 Submit written proof of qualification.

1.7 **Handling and Storage**

- .1 Store materials in one place designated by the Departmental Representative. Keep the storage area clean and tidy, and the temperature between 10° and 26°C.
- .2 Store packaged materials, undamaged, in their original wrapping or containers with manufacturers' labels and seals intact. Manufacturers' labels shall indicate the name of the manufacturer, type of paint, colour, and instructions for reducing.
- .3 Supply all metal and/or plastic containers and canvasses required to protect the floors in those spaces where paint shall be stored and mixed.
- .4 Leave those spaces clean and in their original state at the end of the work, cleaning all traces of paint. Every day get rid of the detritus.

1.8 **Job Conditions**

- .1 Do not apply finishes in areas where dust is being generated.
- .2 Product, surface and ambient air temperature shall be at a minimum of 10°C for latex based paints and minimum of 7°C for solvent based paints.
- .3 Ambient relative humidity shall be below 80% during application.
- .4 Do not allow smoking, post adequate signs.
- .5 Provide appropriate fire extinguishers in good condition and in sufficient numbers according to the regulations for fight fighting measures.
- .6 Take all required measures to provide for health and safety during application.

1.9 **Waste Treatment**

- .1 Waste treatment to be done as per **Section 01 74 21**.

2.0 **PRODUCTS**

2.1 General

- .1 Any name of an acceptable manufacturer, supplier or product model mentioned below is given only as a reference for a minimum level of quality.

2.2 Materials

- .1 Paints must meet the requirements of standards GS-11 and SCAQMD Rule 1113.
- .2 For the execution of the painting work, use only products included in the MPI homologated products lists and conforming to the standards mentioned at the end of this **Section**.
- .3 All paint materials to conform to regulatory requirements for surface burning characteristics.
- .4 All paint should be lead free.
- .5 All paint materials and their primers shall respect the VOC limits established by the relevant authorities.
- .6 Paint, lacquer and varnish materials for each coating system to be products of a single manufacturer.
- .7 Products of comparable properties by manufacturers other than those mentioned at the end of this **Section** may also be acceptable.
- Acceptable products, as manufactured by:
 - .1 Benjamin-Moore
 - .2 ICI/Devoe
 - .3 Sherwin-Williams
 - .4 SICO
 - .5 Substitute products: approved by addendum in accordance with the **Instructions to Bidders**.

2.3 Mixes and Colouring

- .1 Paint products should be delivered factory pre-mixed, except those which have several components which are to be mixed on site as per the manufacturer's instructions.
- .2 Mix the pigments and tint using non-ferrous metal or plastic containers of appropriate size, using the pigments as recommended by the manufacturer for each colour and type.

3.0 EXECUTION

3.1 Coordination

- .1 Coordinate with subsequent trades, to ensure that other related work does not commence before finishes are completely cured.
 - .2 Ensure substrates are prepared adequately; if they are factory primed, ensure they have compatible
-

primers.

3.2 General

- .1 Carry out preparation, priming, finishing, protection and cleaning work in accordance with best trade practice and the manufacturers' instructions as well as applicable standards in order to provide quality work in all aspects.
- .2 Ensure that all defects have been repaired adequately and surfaces are clean and in proper condition and all other factors, such as temperature and ventilation, are appropriate for the work. Notify the Departmental Representative if necessary.
- .3 Check humidity level of the substrate by appropriate apparatus in the Departmental Representative's presence. Do not apply finish if the rate of relative humidity is higher than 15%.
- .4 Beginning of paint work implies acceptance of the surfaces without reservation, and the Contractor shall be responsible for the state of the finish, if it is unsatisfactory or not of the highest quality.
- .5 Protect all existing or new surfaces, including surfaces to receive sealants, from paint splatters and other damage resulting from the work. Use protection canvases and non-staining removable masking tape in sufficient quantities.
- .6 Cover all surfaces to receive sealants. Do not apply finishes on sealants, unless they are compatible and completely dry. Modified latex elastomer sealants can receive paint, but only **3 weeks** after application.
- .7 Protect adequately or remove hardware pieces and all other prefinished adjacent elements, such as apparatus, equipment or accessories, using canvases, masking tape or other appropriate means. After the painting is done, clean and touch-up adjacent objects to return them to their initial state.
- .8 Paint all primed or unprimed metals and galvanized or zinc-wiped metal surfaces as indicated.
- .9 Allow proper cure time between applications of subsequent layers or coats.
- .10 Touch up and refinish deficiencies. If finished work is unsatisfactory to the Departmental Representative, redo the entire unaccepted surfaces.
- .11 Use only clean equipment in good working order.
- .12 Remove removable parts, if necessary, paint separately and reinstall after drying the substrate.
- .13 Do not paint over labels, name plates, and instruction plates.

3.3 Preparation of Surfaces

- .1 Prepare and prime all surfaces as per manufacturer's instructions.
 - .2 Patch and repair, if necessary, then sand and adequately clean existing painted surfaces.
-

- .3 Ensure galvanized steel and zinc coated surfaces are adequately degreased before painting.

3.4 Application

- .1 All paints shall be applied evenly without streaks, runs, misses, brush marks or other defects. The film must adhere uniformly and strongly.
- .2 Unless otherwise indicated, paint all exposed surfaces, except those specified as not to be painted on the drawings or as described herein.
- .3 Consult the Departmental Representative for surfaces not mentioned in the specification.
- .4 Apply an additional primer coat to all encased structural elements.
- .5 Sand and dust between subsequent coats and remove defects visible from distance up to 1500 mm (5').
- .6 Apply at least **2 coats** of paint over the primer and base coats if applicable, for all new surfaces to be painted, unless indicated otherwise. If necessary, add more coats to cover imperfections.
- .7 Apply paint of similar properties and matching the existing in at least **2 finishing coats** on existing painted surfaces and on surfaces to repair.
- .8 Apply additional finish coats if defects are still visible after the application of the base coats. Request the work to be inspected before applying the last coat.

3.5 Cleaning

- .1 Execute cleaning as per **Section 01 74 11**.
 - .2 During work, clean all paint marks and droppings with appropriate solvents recommended by the manufacturer. Repair surfaces marked or damaged by paint.
-

4.0 PAINTING SYSTEMS

4.1 Acceptable products

ACCEPTABLE PRODUCTS

Conforming or corresponding to the standards referenced below

LEGEND:

CAN/CGSB: Canadian General Standards Board
 GPS: Green Performance Standard
 GS: GreenSeal (certified)
 MPI: Master Painters Institute (MPI Category)

N/A: Not applicable
 GL: Gloss level
 ARBM: as recommended by the manufacturer
 * Approved by the Canadian Food Inspection Agency

Gloss Level	Gloss @ 60 degrees	Sheen @ 85 degrees
GL 1 – Matte Finish (Flat)	Max. 5	Max. 10
GL 2 – Velvet-Like Finish	Max. 10	10 to 35
GL 3 – Eggshell Finish	10 to 25	10 to 35
GL 4 – Satin-Like Finish (Pearl, Melamine)	20 to 35	Min. 35
GL 5 – Traditional Semi-Gloss Finish	35 to 70	
GL 6 – Traditional Gloss	70 to 85	
GL 7 – High Gloss Finish	More than 85	

Any name of an acceptable manufacturer, supplier or product model mentioned below is given only as a reference for a minimum level of quality.

Acceptable products, as manufactured by:

- .1 Benjamin-Moore
- .2 ICI/Devoe
- .3 Sherwin-Williams
- .4 SICO
- .5 Substitute products: approved by addendum in accordance with the Instructions to Bidders.

1 primer coat	Min. 1 undercoat	Min. 2 finish coats
---------------	------------------	---------------------

PT.9L – ACRYLIC URETHANE PAINT 0 VOC (INTERIOR/EXTERIOR)

PT.9LC – Acrylic urethane paint 0 VOC on primed ferrous metals (interior/exterior)

Spot priming with water base primer, 0 VOC GS-11	-----	Acrylic urethane paint 0 VOC semi-gloss (GL 5) GS-11
--	-------	--

PT.9LD – Acrylic urethane paint 0 VOC on zinc-coated, galvanized metals (interior/exterior)

Water base primer, 0 VOC GS-11	-----	Acrylic urethane paint 0 VOC semi-gloss (GL 5) GS-11
-----------------------------------	-------	--

End of Section

