

1. GENERAL

1.1 Work Included

- .1 All equipment, pipes, fittings, valves, accessories, supports and miscellaneous items specified in Divisions 13 and 15 shall have protective coatings applied in the field except those, which are factory finish coated.
- .2 All conduits, supports, accessories, and miscellaneous items supplied under Division 16 shall be painted in accordance with this Section. The only exceptions are those, which are factory, finish coated, galvanized or stainless steel.
- .3 Some equipment supplied under other supply contracts is factory finished. The Contractor is required to touch-up damaged surfaces after installation.

1.2 Delivery and Storage

- .1 All paint materials are to be delivered to the site in sealed containers properly labelled as to the manufacturers name, type and colour of contents, date of manufacture, batch number, and storage requirements.
- .2 Provide adequately heated and ventilated storage for all materials and ensure compliance with fire prevention regulations.

2. PRODUCTS

2.1 Manufacturers

- .1 All constituents of each coating system are to be provided by the same manufacturer.
- .2 The Contractor shall furnish to the Contract Administrator duplicate copies of manufacturer's data sheets for the paints he proposes to use.

2.2 Coating Systems

- .1 Equipment or accessories delivered complete with factory finished coatings as specified in Section 13901; coated for system identification and maintenance:
 - .1 Solvent cleaning.
 - .2 Hand tools cleaning.
 - .3 2 coats of industrial alkyd enamel. Minimum dry film thickness of 37 microns per coat.

If equipment or accessories come with a colour, which matches the existing colour of similar existing equipment or accessories, then only touch-up painting as required to cover scratches and chips, etc.

- .2 Equipment or accessories fully primed in factory as specified in Section 13901, but without finished coatings:
 - .1 Solvent cleaning.
 - .2 Painted surface to be lightly abraded by steel wool or abrasive cloth to provide key.
 - .3 2 coats of individual alkyd enamel. Minimum dry film thickness of 37 microns per coat.
- .3 PVC pipes, fittings, or accessories coated for identification only:
 - .1 Solvent cleaning.
 - .2 2 coats of industrial alkyd enamel. Minimum dry film thickness of 37 microns per coat.

2.3 Colour Coding

- .1 Refer to Section 13910 for pipe and equipment identification colour coding. Note that full coating of pipes, fittings and valves is required.
- .2 Consult the Contract Administrator for colour select on any other items.

2.4 Equipment Supplied Under Other Contracts

- .1 All equipment supplied under other supply contracts is factory coated to match the existing colours, and therefore only touch-up painting is required.

3. EXECUTION

3.1 Quality Assurance

- .1 All paints and coatings will be applied strictly in accordance with the manufacturers directions by skilled and experienced painters.
- .2 Particular attention shall be paid to ensure the compatibility of each surface treatment with the preceding and subsequent surface treatments and coatings. The Contractor shall be responsible for the compatibility of all surface treatments, coatings and application procedures.
- .3 Colouring pigments shall not contain lead compounds.
- .4 Two part or any similar chemically cured type paint shall not be used after the expiration of the "pot life" stipulated by the manufacturer and such paints shall not be mixed with fresh paint.
- .5 The dry film thickness of the paint system shall not be less than the thickness specified. The dry film thickness shall be measured by an Elcometer, or other acceptable instrument subject to the review of the Contract Administrator.

- .6 All metal items shall be inspected on delivery to site and any defects in the surface treatment shall be rectified without delay.
- .7 Steelwork items shall not be prepared for coating, nor shall such coatings be applied, until all cutting, drilling, reaming etc. has been completed.

3.2 Environmental Conditions

- .1 No coating shall be applied when the ambient or surface temperature is below 10°C or less than 3°C above the dew point.
- .2 Provide adequate ventilation and sufficient heating to maintain temperatures above 7°C for 24 hours before coatings are applied. Continue heating to maintain 10°C during application and for 48 hours after application.
- .3 Provide a minimum of 300 lux illumination on surface to be treated if painting work is to be carried out without sufficient daylight.
- .4 Do not apply coatings where dust is being generated.
- .5 For outdoor painting work, no coating shall be applied during periods of inclement weather, e.g. rain, frost, fog or mist where condensation has occurred or is likely to occur on the surfaces to be coated.

3.3 Protection

- .1 All reasonable measures shall be implemented to avoid damage to surface coatings during handling and erection on site and from any other cause including the execution of adjacent work, the operations of other contractors and the effects of weather. Any damage or deterioration of surface coatings shall be remedied immediately to the satisfaction of the Contract Administrator and in a manner compatible with the coating system provided.
- .2 Provide sufficient drop cloths, shields and protection equipment to prevent spray or droppings from fouling surfaces not being painted. Make good any damage resulting from inadequate or unsuitable protection.
- .3 Maintain all coated surfaces until completion of the works. Damage to coatings, occurring at any time, shall be made good within seven days.
- .4 Place cotton waste, cloths and materials, which may constitute a fire hazard in closed metal containers and remove from the site at suitable intervals.
- .5 Remove and after painting replace or adequately mask all grease nipples, bright metal surfaces, identification plates and other items not to be painted. Do not use solvent that may remove permanent lacquer finishes.

3.4 Condition of Surfaces

- .1 Thoroughly examine all surfaces to be treated or coated prior to commencement of work. Report, in writing, to the Contract Administrator any condition or defect that may affect the

integrity or quality of the finished coating. Do not commence work on any section until all such defects in the section have been corrected.

- .2 On all factory primed or coated equipment, touch up defects prior to the application of subsequent coatings.
- .3 Be responsible for the condition of surfaces and for correcting defects and deficiencies in the surface.
- .4 The Contractor shall preserve all surface treatments in “a new” condition until handing over except insofar as further coatings are to be applied under the Contract.

END OF SECTION