

SECTION 099600

HIGH PERFORMANCE COATINGS

Part 1 - GENERAL

1.01 WORK INCLUDED

- A. This specification covers preparation of surfaces, material performance standards and completion of painting of all surfaces, as required by the drawings and as specified herein.

1.02 QUALITY ASSURANCE

- A. Job Mock-Up:
 - 1. Minimum 10 sq. ft. application of each specified coating system on each type of substrate.
 - 2. Mock-ups will serve as standard for acceptance of work.
 - 3. Leave approved mock-ups in place as part of completed project.
 - 4. Manufacturer's representative shall be available to advise applicator on proper application techniques and procedures.
 - 5. Mock-up shall be tested to verify compatibility and adhesion to the substrate.
- B. Regulatory Requirements: Comply with applicable codes, regulations, ordinances, and laws regarding use and application of coating systems that contain volatile organic compounds (VOC).
- C. Field Quality Control:
 - 1. Installer shall request acceptance by Owner's Representative of each coat before applying succeeding coats.
 - 2. Furnish and maintain at Project site following fully calibrated testing and inspection devices:
 - a. Wet Mil Gauge
 - b. Micro Test Magnetic Dry Film Gauge with Calibration Shims
 - c. Sling Psychrometer

- 1.03 Initiate and maintain for duration of Project field quality control program using certified calibration and testing devices to ensure conformance with application requirements.

1.04 REFERENCE STANDARDS

- A. American Society for Testing and Materials (ASTM)
 - 1. ASTM D 4585 Condensing Humidity
 - 2. ASTM B 117 Salt Spray
 - 3. ASTM D 3359B Adhesion
 - 4. ASTM D 3273 Fungal Resistance
 - 5. ASTM D 1653 Moisture Vapor Transmission
 - 6. ASTM G 53 QUV Exposure
 - 7. ASTM D 4213 Scrubbability
 - 8. ASTM D 1308 Stain Resistance

9. ASTM D 4060 Abrasion Resistance
10. ASTM D 2246 Freeze Thaw
11. ASTM D 3363 Hardness
12. ASTM D 2794 Impact Resistance

B. Federal Test Methods:

1. Standard #TT-C-555B, Paragraph 4.4.7.3, Wind Driven Rain

C. Exterior Exposure - Exterior Exposure at 45 degrees facing south

1.05 SUBMITTALS

A. Product Data:

1. Submit manufacturer's descriptive literature fully describing each product and solids by volume contents.
2. Include manufacturer's recommendations for mixing, thinning, application and curing.
3. Submit manufacturer's product data sheets.
4. Submit special coating schedule indicating locations and applications by manufacturer's name and product number.

B. Samples:

1. Submit manufacturer's standard colors for selection by Architect.
2. Submit two (2) 12" x 12" samples of each coating system in selected colors on substrate sample to be finished.
3. Indicate finish texture and color.

C. Test Samples:

1. When requested by Architect, obtain test samples from material stored at project site or source of supply.
2. Retain all paint cans and lids on site until authorized to discard by Architect.

D. Certificates: Manufacturer's certified test report from acceptable independent testing laboratory indicating coatings comply with performance requirements.

1.06 PRODUCT DELIVERY, STORAGE, HANDLING:

- A. Deliver materials in factory-sealed containers with manufacturer's labels intact and legible.
- B. Store materials in accordance with manufacturer's written instructions.

1.07 JOB CONDITIONS:

A. Apply coating materials only under following prevailing conditions, unless otherwise noted on manufacturer's product data:

1. Air and surface temperatures are in accordance with the manufacturer's product literature.
2. Do not apply coatings to damp or wet surfaces.
3. Relative humidity is below 85% and surface temperature is at least 5 degrees F above dewpoint.

4. Wind velocity must be under 20 mph.

B. Protect all surface not to be coated.

1.08 SAFETY:

- A. Submit to the client, current manufacturer's product data sheets as well as Material Safety Data Sheets.
- B. Ensure that waste material is disposed of in accordance with applicable government regulations.
- C. Report to a responsible person, any condition that may pose a threat to the health and welfare of your employees.
- D. Keep working area clean and safe.
- E. Obey all jobsite rules and regulations.

Part 2 - PRODUCTS

1.01 ACCEPTABLE MANUFACTURERS:

- A. Products specified are manufactured by Tnemec Company, Inc. Dupont or prior approved equal.
- B. Bidders desiring to use coatings other than those specified shall submit their proposal in writing to the Architect at least ten (10) days prior to the bid opening. Requests for substitution shall include manufacturer's literature for each product giving the name, generic type, descriptive information, solids by volume, recommended dry film thickness and a list of five projects where each product has been used and rendered satisfactory service. No request for substitution shall be considered that would decrease film thickness, the number of coats applied, offer a change in the generic type of coating specified or fail to meet the performance requirements of the specified materials. The coating contractor shall submit manufacturer's certified test reports showing that the substitute product(s) equal or exceed the performance of the specified products outlined in section 3.6 painting schedule.
- C. Bidders desiring to use coatings, other than those specified, shall submit those with their proposal based on the specified materials, together with the information required in Paragraph 2.1B above, and indicate the sum which will be added to or deducted from the base bid should alternate materials be accepted.
- D. Products for each specified function and system shall be of a single manufacturer.
- E. Requests for substitution will be considered in accordance with provisions of Section 01251.

1.02 MATERIALS

- A. See Finish schedule Section 3.6

1.03 MATERIAL PREPARATION:

- A. Mix and thin materials according to manufacturer's latest printed instructions.
- B. Do not use materials beyond manufacturer's recommended shelf life.
- C. Do not use mixed materials beyond manufacturer's recommended pot life.

Part 3 - EXECUTION

3.1 PRE - WORK INSPECTION:

- A. Examine surfaces to be coated and report conditions that would adversely affect appearance or performance of coating systems and which cannot be put into an acceptable condition by preparatory work specified in Paragraph 3.2.
- B. Do not proceed with surface preparation and application until surface is acceptable or authorization to proceed is given by architect.

3.2 SURFACE PREPARATION

- A. General:
 - 1. Dislodge dirt, rust, plaster nibs, mortar spatter and other dry material by scraping or brushing. Remove dust and loose material by brushing, sweeping, vacuuming or blowing with high-pressure air.
 - 2. Remove oil, wax and grease by scraping off heavy deposits and cleaning with industrial grade cleaner followed by a water rinse.
 - 3. Verify that surfaces to be coated are dry, clean and free of dust, dirt, oil, wax, grease or other contaminants.
- B. Gypboard
 - 1. Clean dry and free of contaminants.
 - 2. Sand joint compound smooth and feather.

3.3 APPLICATION

- A. Apply materials at specified film thickness by method recommended by manufacturer.
- B. Make finish coats smooth, uniform in color, and free of brush marks, laps, runs, dry spray, overspray and skipped or missed areas.
- C. Do not apply initial coating until moisture content of surface is within limitations recommended by paint manufacturer. Test with moisture meter.
- D. Apply all coatings in strict accordance with manufacturer's latest printed and published instructions.
- E. Provide "Wet Paint" signs as required to protect newly coated finishes. Remove temporary protective wrappings provided by other for protection of their work, after completion for painting operations.
- F. Protect all surfaces not to be painted.
- G. Good painting practices shall be employed at all times.

3.4 INSPECTION

- A. Request acceptance of each coat before applying succeeding coats.
- B. Repair and touch-up all work that is not acceptable to the architect and request final acceptance.

3.5 CLEANING

- A. Remove paint spatters from glass, plumbing fixtures and adjoining surfaces.
- B. Repair damage to coating or surfaces caused by cleaning operations.
- C. Remove debris from jobsite and leave storage areas clean.

3.6 PAINTING SCHEDULE

- A. Gypboard
 - 1st Coat Tnemec Series 51-792 PVA Sealer 1.0 dry mils
 - 2nd Coat Tnemec Series 1029 Enduratone 2.0-3.0 dry mils
 - 3rd Coat Tnemec Series 1029 Enduratone 2.0-3.0 dry mils

3.7 ACCEPTANCE

- A. Final acceptance of coatings shall be based upon inspection by the Owner's Representative. Coatings falling below specified and/or scheduled finish and shade shall be redone as required without expense to the Owner.

END OF SECTION 099600