SECTION 09905
AIR DRY FLUOROPOLYMER COATING

PART 1 GENERAL

1.1 SUMMARY

A. Section includes surface preparation and field application of air dried fluoropolymer coating for all exposed steel and grid insert to support letters at drive thru canopy.

B. Related Sections:
1. Section 01300 – Submittals
2. Section 01400- Quality Control Requirements
3. Section 01700- Project Record Documents
4. Section 05200 – Structural Steel

C. For the purposes of this section the term “Architect” shall mean “Engineer”.

1.2 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer’s technical information, label analysis, and application instructions for each material proposed for use.

1. List each material and cross-reference the specific coating and finish system and application.
2. Identify each material by the manufacturer’s catalog number and general classification.

C. Samples for verification purposes: Provide samples of each color and material to be applied, with texture to simulate actual conditions, on representative samples of the actual substrate. Define each separate coat, including block fillers and primers. Use representative colors when preparing samples for review. Resubmit until required sheen, color, and texture are achieved.

1. Provide a list of material and application for each coat of each sample. Label each sample as to location and application.
2. Submit samples on the following substrates for the Architect’s review of color and texture only.
3. Ferrous Metal: Provide two 4-inch square samples of flat metal and two 8-inch long samples of solid metal for each color and finish.

D. All materials specified herein are manufactured by the TNEMEC Co., Inc., North Kansas City, (Local Contact 615-333-1000) Missouri and are approved for use on this project.

E. Equivalent materials of other manufacturers may be substituted on approval of the Architect. Requests for substitution shall include Manufacturer's literature for each product giving the name, generic type, descriptive information and evidence of satisfactory past performance on similar projects. Submittals shall include the following performance data as certified by a qualified testing Laboratory:

1. ASTM B117 - Method of Salt Spray (Fog) Testing
2. ASTM D149 - Method for Dielectric Breakdown Voltage and Dielectric Strength of Solid Electrical Insulating Materials of Commercial Power Frequencies
3. ASTM D3359 - Method for Measuring Adhesion by Test Tape
4. ASTM D3363 - Method for Film Hardness by Pencil Test
5. ASTM D4060 - Method for Abrasion Resistance of Organic Coatings by the Taber Abraser.
6. ASTM D4541 - Method for Pull-Off Strength of Coats Using Portable Adhesion Testers
7. ASTM 4585 - Practice for Testing the Water Resistance of Coatings Using Controlled Condensation
8. ASTM G53 - Practice for Operating Light and Water Exposure of Nonmetallic Materials
9. SSPC-SP6 - Commercial Blast Cleaning
10. SSPC-SP10 - Near White Blast Cleaning

F. 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. Substitutions which decrease the film thickness, the number of coats applied, change the generic type of coating, or fail to meet the performance criteria of the specified materials will not be approved. Prime and finish coats of all surfaces shall be furnished by the same manufacturer.

G. Materials supplied by other manufacturers may be considered for substitution if the following prevailing conditions exist:

1. Performance criteria of the specified materials are exceeded by the submitted alternate materials as listed in Part 2 and detailed on the technical data sheets of each specified product.

2. The submittal must compare the performance criteria of the specified material with that of the submitted material and be documented in a side by side manner for the Engineer\Owner to review.

3. Substitute materials must be for complete systems and not individual products combined with the specified materials and the performance criteria for all products within a system must meet or exceed the specified materials.

H. Only one alternate submittal will be received for this specification and must be accompanied by a detailed statement of the sum to be added or deducted from the base bid should alternate materials be accepted.

1.3 QUALIFICATIONS

A. Applicator: Company specializing in performing work of this section with minimum three years experience and approved by manufacturer.

1.4 ENVIRONMENTAL REQUIREMENTS

A. Section 01400 – Quality Control Requirements

B. Apply only when the air temperature and surface temperature are above 40 degrees F and surface temperature is as leas 5 degrees F above the dew point

1.5 WARRANTY

A. Section 01700 – Project Record Documents: Product warranties and product bonds.

B. Furnish year manufacturer warranty for air dried fluoropolymer coating.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Cleaners, Paints and coatings
1. Tnemec Company, Inc. Local Representative 615-333-1000

2.2 PAINTS AND COATINGS

1. Surface Preparation: SSPC-SP6 Commercial Blast Cleaning.
2. Shop/Field Prime Coat: Tnemec 90-97 Tneme-Zinc at 2.5 to 3.5 mils DFT.
3. Intermediate Coat: Tnemec 73-Color Endura-Shield at 2.0 to 3.0 mils DFT.
4. Finish Coat: Tnemec 1070-Color Fluoronar at 2.0 to 3.0 mils DFT.- Finish color to match “Tennessee Volunteer” orange on structural steel. Finish color of grid insert used to support letters to be white.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify surfaces are ready to receive Work as instructed by product manufacturer.

B. Super Shield product- Surface and air temperatures should be a minimum of 40 degrees F and remain above 40 degrees G for minimum of four hours following application. Surfaces should be cleaned of oil, water and/or grease. Must be thoroughly dry: not suitable for application to cool, damp surfaces.

3.2 PREPARATION

A. SSPC-SP6 Commercial Blast Cleaning.

B. Apply test patch to confirm satisfactory adhesion of the topcoat primer system. Apply coating to an area equal to the height of the paint stripe and equal to width of one full panel in inconspicuous location. After minimum seven calendar days test by scratching and by removing tape applied in crisscross pattern to determine adhesion.

3.3 APPLICATION

A. Air spray.

B. Provide cover for surrounding areas that are not to be painted, plantings, asphalt, Guard building roof and building wall. Do not get overspray on any item other than the structural steel.

3.4 CLEANING

A. Collect waste material which may constitute fire hazard, place in closed metal containers, and remove daily from site.

3.5 COLOR SCHEDULE

A. Exposed structural and decorative steel at canopy as indicated on drawings

1. “Tennessee Orange” 12 “ steel tube columns and beams, decorative brackets and bollards at base of columns.
2. Frame and grid that supports identification cast letters- white or black depending on visual background. Color to be determined when canopy is in place

Owner reserves the right to change color scheme during submittal process.

END OF SECTION