

Tnemec Flouonar Building Façade Long Form Coatings Schedule

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. To define requirements for materials, size, and design, this specification lists specific products manufactured by Tnemec Company, Inc. of Kansas City, Missouri. Materials specified herein are cited as minimum standard of quality which will be acceptable.
- B. Materials specified herein shall not preclude consideration of equivalent or superior materials. Suggested equivalent materials or other substitutions shall be submitted to Engineer for consideration in compliance with substitution procedures in Section 01600 of this Project Manual.
 - 1. Requests for substitution shall include evidence of satisfactory past performance on exterior steel structures five years or longer.
 - 2. Substitutions will not be considered that change number of coats or do not meet specified total dry film thickness.

2.2 COATING MATERIALS

Note: Delete materials not applicable to project. For alternate materials and systems contact your Tnemec Representative or Tnemec Technical Services.

- A. **(Shop or Field Steel Primer)** Tnemec Series 94-H₂O Hydro-Zinc Primer Coat (Ferrous Metals)
 - 1. Generic Type: Aromatic Urethane Zich-Rich
 - 2. Description: An advanced technology, two-component, moisture-cured, zinc-rich primer providing extraordinary performance. It's user friendly and rapid curing so that chemical and corrosion-resistant topcoats can be applied the "same-day". Also used for field touch-up of inorganic zinc coatings.
 - 3. Properties:
 - a. Solids by Volume: 63.0 +/- 2.0%
 - b. VOC: Unthinned: 0.74 lbs/gallon (89 grams/litre)
Curing Time: At 75° F (24° C) (curing time varies with surface temperature, air movement, humidity and film thickness.)
 - c. To Handle: ¼ to 1 hours (use Series 44-710 Urethane Accelerator for faster recoat times)
 - d. To Re-coat: 2 to 5 hours (use Series 44-710 Urethane Accelerator for faster recoat times)
 - 4. Performance Criteria:
 - a. Adhesion; ASTM D4541 (Elcometer): Not less than 800 psi (5.5 MPa) pull.
 - b. Adhesion; ASTM D3359, (Method B, 5 mm Crosshatch): No less than a rating of 5.
 - c. Exterior Exposure; Saltwater, splash and spray (Atlantic seacoast): No blistering, cracking, rusting or delamination of film after one year exposure.
 - d. Humidity; ASTM D4585: No blistering, cracking, rusting or delamination of film after 1,000 hours exposure.
 - e. Salt Spray (Fog); ASTM B117: No blistering, cracking, rusting or delamination of film. No more than 1/64" (0.4 mm) rust creepage at scribe after 10,000 hours exposure.
 - f. Static Fatigue (Slip Coefficient & Tension Creep): Method: Perform tests in compliance with AISC specifications using equipment as described in Research Council on Structural Connections Specifications, Appendix A, Section 4.1 Results: Class B surface with a mean slip coefficient not less than 0.50 and a tension creep not in excess of .005" (0.13 mm)
- B. **(Shop or Field applied Intermeidate Coat or Primer over Galvi Metals)** Tnemec Series V69F Epoxoline II Fastcure Primer Coat (Galvanized & Non-Ferrous Metals)
 - 1. Generic Type: Polyamindoamine Epoxy
 - 2. Description: Low temperature-cure, self-priming corrosion-resistant coating for protection against abrasion, immersion and mild chemical contact.

3. Properties:
 - a. Solids by Volume: 69 +/- 2.0%
 - b. VOC: Unthinned: 190 lbs/gallon (228 grams/litre)
4. Performance Criteria:
 - a. Abrasion; ASTM D4060, (CS-17 Wheel, 1,000 grams load): No more than 115 mg. loss after 1,000 cycles
 - b. Adhesion: ASTM D3359, (Method B, 5 mm Crosshatch): No less than a rating of 5; average of 3 tests
 - c. Adhesion: ASTM D4541 (Elcometer): No less than 1,000 psi (6.89 MPa) pull; average of 5 tests
 - d. Exterior Exposure: exposed at 45° facing south (light industrial area): No blistering, cracking or delamination of film. No rust creepage at scribe or no rusting at edges after 72 months exposure.
 - e. Fresh Water; Continuous immersion in tap water at 75° F (24° C): No blistering, cracking, rusting or delamination of film after 4 years.
 - f. Hardness; ASTM D3363 (Pencil): Pass 3H (Gouge)
 - g. Humidity; ASTM D4585: No blistering, cracking, rusting or delamination of film after 4,500 hours exposure.
 - h. Salt Spray (Fog); ASTM B117: No blistering, cracking, rusting, or delamination of film. No more than 1/32" (0.8 mm) rust creepage at scribe after 1,500 hours exposure.
 - i. Surface Burning Characteristics; ASTM E84: Class A

C. **(Field Applied Urethane Finish Coat)** Tnemec Series 1095 Endura-Shield (semi-gloss)

1. Generic Type: Aliphatic Acrylic Polyurethane
2. Description: A coating highly resistant to abrasion, wet conditions, corrosive fumes and exterior weathering. Is used as a opac finish or as an intermediate coat for Series 1070 Fluoronar.
3. Properties:
 - a. Solids by Volume: 66% +/- 2.0%
 - b. VOC, Unthinned: 89 grams/litre
4. Curing Time: At 75° F (24° C) (curing time varies with surface temperature, air movement, humidity and film thickness.)
 - a. To Touch: 1 hour
 - b. To Handle: 2 1/2 to 6 hours
 - c. To Re-coat: 5 to 6 hours
5. Performance Criteria: Unless otherwise indicated, coating systems for tests were applied to SSPC SP10 cleaned steel and cured at 75° F (24° C).
 - a. Abrasion; ASTM D4060, (CS-17 Wheel, 1,000 grams load): No more than 75 mg loss after 1,000 cycles
 - b. Adhesion; ASTM D3359, (Method B, 5 mm Crosshatch): No less than a rating of 5.
 - c. Adhesion; ASTM D4541 (Elcometer): No less than 825 psi (5.86 MPa) pull; average of 3 tests.
 - d. Exterior Exposure; exposed at 45° facing south (South Florida marine exposure): No blistering, cracking or chalking of film; less than 40% gloss loss and less than 4.0 MacAdam units color change after two years exposure.
 - e. Flexibility; ASTM D522 (Method B Cylindrical Mandrel): Passes 1/8" (3.2 mm) mandrel with elongation greater than 36.4% when cured for either 7 or 30 days at 75° F (24° C).
 - f. Graffiti Resistance: Complete and easy removal. Graffiti materials as follows shall be applied to coating and allowed to dry for seven days; acrylic, epoxy-ester and alkyd spray paints, crayon, lipstick, shoe polish, ball point ink and Markette marker. Removal first attempted with xylene, if graffiti remained then methyl ethyl ketone (MEK) used; if graffiti remained Spray Pak Vandal Mark Remover used.
 - g. Hardness; ASTM D3363: No gouging with an HB or less pencil.
 - h. Humidity; ASTM D4585: No blistering, cracking or delamination of film after 1,000 hours exposure.
 - i. Impact: ASTM D 2794: No visible cracking or delamination after 150 inch/pounds or less indirect impact.

- j. QUV Exposure; ASTM G53 (FS-40 bulbs, 4 hours light, 4 hours dark): No blistering, cracking or chalking; less than 55% gloss loss and less than 1.6 MacAdam units color change after 1,000 hours exposure
- k. Salt Spray (Fog); ASTM B117: No blistering, cracking, rusting or delamination of film. No more than 1/32" (.8 mm) rust creepage at scribe after 1,000 hours exposure.

D. **(Field or Shop Applied Fluoropolymer Finish Coat)** Tnemec Series 1070V/1071V/1072V/1078V

1. Generic Type: Fluoropolymer Polyurethane – Metallic & Opaque Finish
2. Description: A high-solids fluoropolymer coating that provides an ultra-durable finish with user friendly brush, roll and spray application. It has outstanding color and gloss retention even in the most severe exposures. Similar performance of Kynar. ***Projected color and gloss retention is between 20 to 30 years***
3. Properties:
 - a. Solids by Volume: 56 +/- 2.0%
 - b. VOC: Unthinned: 0.81 lbs/gallon (97 grams/litre) / No.65 Thinner Thinned 5%: 0.81 lbs/gallon (97 grams/litre)
4. Curing Time: At 75° F (24° C) (curing time varies with surface temperature, air movement, humidity and film thickness.)
 - a. To Touch: 1 1/2 hours
 - b. To Handle: 6 to 8 hours
 - c. To Re-coat: 24 hours
5. Performance Criteria
 - a. Abrasion; ASTM D4060, (CS-17 Wheel, 1,000 grams load): No more than 103 mg loss after 1,000 cycles.
 - b. Impact; ASTM D 2794: No visible cracking or delamination after 148 inch/pounds or less direct impact and 84 inch-pounds indirect impact.
 - c. Flexibility; ASTM D522 (Method A, Conical Mandrel): Passes 19.4% elongation, average of 3 trials.
 - d. Hardness; ASTM D3363: No gouging or scratching with an HB or less pencil.
 - e. Gloss; ASTM D 523, 60° angle: 80 gloss, average.
 - f. Accelerated Weathering; ASTM D 1014, EMMAQUA: No blistering, cracking, or chalking. No gloss loss and 0.76 DED FMCII (MacAdam Units) color change after 500 Mj exposure.
 - g. QUV; ASTM G 53, UVA-340 Bulbs: No blistering, cracking, or chalking. Less than 2% gloss loss and 1.56 DED FMCII (MacAdam Units) color change after 5500 hours exposure.
 - h. Salt Spray (Fog); ASTM B 117, No Blistering, cracking, rusting or delamination of film after 2500 hours exposure.
 - i. Humidity; ASTM D 4585: No blistering cracking rusting or delamination of film after 2,500 hours exposure.

E. **(Field or Shop Applied Aluminum Metallic Urethane Finish)** Tnemec Series 1077 Enduralume

1. Generic Type: Metallic Aliphatic Acrylic Polyurethane Finish
2. Description: Available in a non-leafing sparkle aluminum or variety of metallic colors, creating a glossy metallic aesthetic finish. It is a highly durable coating that is resistant to abrasion, wet conditions and exterior weathering. This high performance finish contains UV absorbers for extended color and gloss retention. When extended weatherability is desired Series 1077 can be topcoated with Series 1079 Metallic Clearcoat. Series 1079 Metallic Clearcoat is available in gloss - 1079, semi-gloss 1079-0762 or satin 1079-0763.
3. Properties:
 - a. Solids by Vol: 56 +/- 2.0% (mixed)
 - b. VOC: (Unthinned) Series 75: 1.81-2.63 lbs/gallon (217–263 grams/litre)
4. Curing Time: at 75° F (24° C) (curing time varies with surface temperature, air movement, humidity and film thickness.)
 - a. To Touch: 1 hour
 - b. To Handle: 6 hours
 - c. To Re-coat: 8 hours

5. Performance Criteria: Unless otherwise indicated, coating systems for tests were applied to SSPC SP10 cleaned steel and cured at 75° F (24° C).
 - a. Abrasion; ASTM D4060, (CS-17 Wheel, 1,000 grams load): No more than 75 mg loss after 1,000 cycles
 - b. Adhesion; ASTM D3359, (Method B, 5 mm Crosshatch): No less than a rating of 5.
 - c. Adhesion; ASTM D4541 (Elcometer): No less than 850 psi (5.86 MPa) pull; average of 3 tests.
 - d. Exterior Exposure; exposed at 45° facing south (South Florida marine exposure): No blistering, cracking or chalking of film; less than 40% gloss loss and less than 4.0 MacAdam units color change after 2 years exposure.
 - e. Flexibility; ASTM D522 (Method B Cylindrical Mandrel): Passes 1/8" (3.2 mm) mandrel with elongation greater than 36.4% when cured for either 7 or 30 days at 75° F (24° C).
 - f. Graffiti Resistance: Complete and easy removal. Graffiti materials as follows shall be applied to coating and allowed to dry for seven days; acrylic, epoxy-ester and alkyd spray paints, crayon, lipstick, shoe polish, ball point ink and Markette marker. Removal first attempted with xylene, if graffiti remained then methyl ethyl ketone (MEK) used; if graffiti remained Spray Pak Vandal Mark Remover used.) used; if graffiti remained Spray Pak Vandal Mark Remover used.
 - g. Hardness; ASTM D3363: No gouging with an HB or less pencil.
 - h. Humidity; ASTM D4585: No blistering, cracking or delamination of film after 1,000 hours exposure.
 - i. Impact: ASTM D 2794: No visible cracking or delamination after 150 inch/pounds or less indirect impact.
 - j. QUV Exposure; ASTM G53 (FS-40 bulbs, 4 hours light, 4 hours dark): No blistering, cracking or chalking; less than 55% gloss loss and less than 1.6 MacAdam units color change after 1,000 hours exposure.
 - k. Salt Spray (Fog); ASTM B117: No blistering, cracking, rusting or delamination of film. No more than 1/32" (.8 mm) rust creep age at scribe after 1,000 hours exposure.

2.3 SHOP FINISHING

Note: Coordinate Surface Preparation, Primer Coat & First Finish Coat for Concealed areas only, with the appropriate Metal Specification Sections 05210, 05210, 05500, 05310 & 05700)

A. Surface Preparation:

1. Cleaning of Ferrous Metals shall be done in compliance with Steel Structures Painting Council (SSPC) SP6 Commercial Blast Cleaning or as indicated in Schedule of Coating Systems below.
2. Cleaning of Galvanized & Non-Ferrous Metals shall be done by brush-off abrasive sand blasting . Refer to Tnemec Tech Service Bulletin 10-78 for galvanizing.

Note: Edit out additional shop coats if intermediate and finish coats are going to be applied in the field, otherwise state clearly which coats are to be shop applied. Provide special handling and protection instructions of the factory or shop finished coating system in.

B. Shop Applied Coatings:

1. Structure Steel, metal joist or miscellaneous members shall be primed with one coat of Tnemec Zinc or Series 94-H₂O Hydro-Zinc primer as indicated in Schedule below. If a factory finish or complete system application is desired, then apply the intermediate and finish coats of Tnemec as listed in the coating schedule.
2. Galvanized & Non-Ferrous Metals shall be primed with one coat of Tnemec Series V69F Hi-Build Epoxoline II. If a factory finish or complete system application is desired, then apply the intermediate and finish coats of Tnemec as listed in the coating schedule.
3. Apply materials at film thickness specified by methods recommended by manufacturer in compliance with SSPC PA-1.
4. Allow each coat of paint to dry thoroughly before applying succeeding coats.
5. Make finish topcoats smooth, uniform in color, and free of laps, runs, dry spray, over-spray, and skipped or missed areas.
6. Environmental conditions shall be in compliance with coating manufacturer's printed instructions.
7. Field Touch-up shop applied coatings that are damaged during handling, and shipping, or from stacking and erection of members at the jobsite.

2.4 SOURCE QUALITY CONTROL

A. Testing Laboratory Services:

1. Documents:

- a. Review Contract Documents and applicable sections of referenced standards.

B. Shop Painting Inspection:

1. Verify cleaning operations to surfaces are to condition specified.
2. Verify conformance of paint to specification.
3. Check for thickness of each coating, final thickness and holidays.
4. Check touchup for final finish.

C. Reports:

1. Submit written progress reports describing tests and inspections made and showing action taken to correct nonconforming work. Report uncorrected deviations from Contract Documents.

PART 3 EXECUTION

3.1 ACCEPTABLE INSTALLERS

Submit certification letter listing (5) jobs of similar in material and extent to those systems indicated for the project

3.2 EXAMINATION

A. Site Verification of Conditions:

1. Examine areas and conditions under which application of coating systems shall be performed for conditions that will adversely affect execution, permanence, or quality of coating system application.
2. Correct conditions detrimental to timely and proper execution of Work.
3. Do not proceed until unsatisfactory conditions have been corrected.
4. Commencement of installation constitutes acceptance of conditions and responsibility for satisfactory performance.

3.3 PREPARATION

A. Protection:

1. Take precautionary measures to prevent fire hazards and spontaneous combustion. Remove empty containers from Site.
2. Place cotton waste, cloths and hazardous materials in containers, and remove from Site daily.
3. Provide drop cloths, shields, and other protective equipment.
4. Protect elements surrounding work of this section from damage or disfiguration.
5. As Work proceeds, promptly remove spilled, splashed, or splattered materials from surfaces.
6. During application of coating materials, post Wet Paint signs.
7. During application of solvent-based materials, post No Smoking signs.

B. Field Surface Preparation & Touch-up:

1. General Requirements:

- a. Prior to application of primer, surfaces shall be prepared to receive specified coating system in compliance with manufacturer's recommendations and specifications of Steel Structures Painting Council as indicated in Schedule below.
- b. Clean surfaces of residual deposits of grease, scale, rust, oil, dirt, and other foreign matter, immediately prior to priming. Surfaces to be coated shall be clean, dry, smooth and free from rust as well as dust and foreign matter which will adversely affect adhesion or appearance.

2. Ferrous Metal Surfaces:

- a. Surfaces shall be free of residual deposits of grease, all rust, scale, dirt, dust, and oil.
- b. For shop primed surfaces, sand and scrape to remove loose primer and rust. Feather edges to make touchup patches inconspicuous. Field welds and touchups shall be prepared to conform to original surface preparation standards as indicated in Schedule of Coating Systems below.

- c. Shop applied prime coatings which are damaged during transportation, construction or installation shall be thoroughly cleaned and touched up in field. Use repair procedures which insure complete protection of adjacent primer. Repair methods and equipment may include wire brushing, hand or power tool cleaning or dry air blast cleaning. Follow cleaning methods listed in the Coating Schedule Section of this specification. In order to prevent injury to surrounding painted areas, blast cleaning may necessitate use of lower air pressure, small nozzle and abrasive particle sizes, short blast nozzle distance from surface, shielding and masking. If damage is too extensive to touch-up, item shall be re-cleaned and coated or painted.
 - d. For surfaces not shop primed, surfaces shall be cleaned in compliance with specifications of Steel Structures Painting Council as indicated in Schedule of Coating Systems below.
3. Galvanized Steel, Aluminum & Non Ferrous Metal Surfaces:
- a. Clean metal with a grease-cutting solvent, such as , Acetone to remove contamination and oils in compliance with SSPC-SP1.
 - b. Sand clean and spot prime abraded areas.

3.4 APPLICATION

A. General Requirements:

- 1. Apply coating systems in compliance with manufacturer's instructions and using application method best suited for obtaining full, uniform coverage of surfaces to coated.
- 2. Apply primer, intermediate, and finish coats to comply with wet and dry film thickness and spreading rates for each type of material as recommended by manufacturer.
 - a. Application rates in excess of those recommended and fewer numbers of coats than specified shall not be accepted.
- 3. Number of coats specified shall be minimum number acceptable. Apply additional coats as needed to provide a smooth, even application.
 - a. Closely adhere to re-coat times recommended by manufacturer. Allow each coat to dry thoroughly before applying next coat. Provide adequate ventilation for tank interior to carry off solvents during drying phase.
- 4. Employ only application equipment that is clean, properly adjusted, and in good working order, and of type recommended by coating manufacturer.
- 5. After surface preparation, interior weld seams shall be brush applied.
- 6. Make edges of paint adjoining other materials or colors sharp and clean, without overlapping.

3.5 REPAIR/RESTORATION

- A. At completion of Work, touchup and restore finishes where damaged.
- B. Defects in Finished Surfaces:
 - 1. When stain, dirt, or undercoats show through final coat, correct defects and cover with additional coats until coating is of uniform finish, color, appearance and coverage.
- C. Touchup of minor damage shall be acceptable where result is not visibly different from surrounding surfaces. Where result is visibly different, either in color, sheen, or texture, recoat entire surface.

3.6 FIELD QUALITY CONTROL

A. Testing Laboratory Services:

- 1. Documents:
 - a. Review Contract Documents and applicable sections of referenced standards.
- 2. Field Painting Inspection:
 - a. Verify cleaning operations to surfaces are to condition specified.
 - b. Verify conformance of paint to specification.
 - c. Check for thickness of each coating, final thickness and holidays.
 - d. Check touchup for final finish.

3. Reports:

- a. Submit written progress reports describing tests and inspections made and showing action taken to correct nonconforming work. Report uncorrected deviations from Contract Documents.

B. Manufacturer's Field Service:

1. Coatings manufacturer shall be available to view the work and provide technical assistance, and guidance for application of coating system as needed.

3.7 CLEANING

- A. At completion of day's work, remove from Site rubbish and accumulated materials.
- B. Clean paint spots and other soiling from pre finished surfaces and surfaces with integral finish. Use solvents which will not damage finished surface.
- C. Leave storage area clean and in same condition indicated for equivalent spaces in Project.

3.8 PROTECTION/HANDELING

- A. Protect work against damage until fully cured. Provide signs identifying wet surfaces until surfaces are adequately cured.
- B. Separate shop painted members using wood donage during transportation and when storing at the jobsite.
- C. Use nylon slings to load, unload and secure shop painted steel members.
- D. The contractor shall minimize damage of the coating film when loading, unloading and shipping shop painted steel members.

3.9 WASTE MANAGEMENT

A. General Requirements:

1. Place materials defined as hazardous or toxic waste in designated containers.
2. Return solvent and oil soaked rags for contaminant recovery and laundering or for proper disposal.
3. Do not dispose of paints or solvents by pouring on ground. Place in designated containers for proper disposal.
4. Where paint recycling is available, collect waste paint by type and provide for delivery to recycling or collection facility.

B. Containment/Disposal Requirements:

1. Surface Preparation Debris Containment:

- a. When required by federal, state or local regulation, entire tank and structure shall be enclosed and surface preparation debris contained.
- b. Refer to SSPC 61 Guide for Containing Debris Generated During Paint Removal Operations.

2. Disposal of Surface Preparation Debris:

- a. Refer to SSPC 71 Guide for the Disposal of Lead-Contaminated Surface Preparation Debris.
- b. Surface preparation debris shall be disposed of in compliance with applicable federal, state and local regulations.

3. Containment/Disposal Costs:

- a. Painter shall be responsible for costs associated with containment and waste disposal that may result from execution of this Project.

3.10 SCHEDULE OF COATING SYSTEMS

A. Metallic or Opaque Fluoropolymer Coating System – ***Designed to provide 20 to 30 years color and gloss retention***

Note: Select appropriate coating system listed below and delete others. All coating thickness are expressed in dry film thickness (DFT.)

1. Exterior Exposed Ferrous Metals- Shop applied primer; field touch-up and field applied finishes
 - a. Surface Preparation: SSPC SP6 Commercial Blast Cleaning
 - b. Primer/Shop Coat: Tnemec Series 94-H₂O Hydro-Zinc at Dry Film Thickness: 2.5-3.5 mils
 - c. First Coat: Tnemec Series 1095 Endura-Shield at Dry Film Thickness: 3.0-5.0 mils
 - d. Finish Coat: Tnemec Series 1070V Fluoronar Gloss, 1071V Semi gloss, 1072V Satin , 1078V Metallic at Dry Film Thickness: 2.5-3.0 mils
 - e. Total Dry Film Thickness: 8.0-11.5 mils

Note: Some colors of 1078V require 1079 Metallic Clearcoat due to metallic content ; if long term gloss and color warranty is required, 1079 Metallic Clearcoat is required

B. Exterior Exposed Galvanized & Non-Ferrous Metals - Shop applied primer; field touch-up and field applied finishes.

1. Surface Preparation: Brush blast or mechanically abrade to remove all zinc salts and provide minimum 1 mil anchor pattern. Refer to Tnemec Tech Service Bulletin 10-78 for galvanizing.
2. Primer/Shop or Field Coat: Tnemec Series V69F Hi-Build Epoxoline II at Dry Film Thickness: 2.0-3.0 mils.
3. Finish Coat: Tnemec Series 1070V Fluoronar Gloss, 1071V Semi gloss, 1072V Satin, 1078V Metallic at Dry Film Thickness: 2.5-3.0 mils
4. Total Dry Film Thickness: 6.5-9.5 mils

Note: Some colors of Series 1078V requires Series 1079 Metallic Clearcoat due to metallic content ; if long term gloss and color warranty is required, 1079 Metallic Clearcoat clear is required

C. Metallic Aliphatic Acrylic Polyurethane Coating System – ***Designed to provide 8 to 10 years color and gloss retention depending the color intensity.***

1. Exterior Exposed Ferrous Metals- Shop applied primer; field touch-up and field applied finishes
 - a. Surface Preparation: SSPC SP6 Commercial Blast Cleaning
 - b. Primer Coat: Tnemec Series 94-H₂O Hydro-Zinc at Dry Film Thickness: 2.5-3.5 mils
 - c. First Coat: Tnemec Series V69F Hi-Build Epoxoline II at Dry Film Thickness: 2.0-3.0 mils
 - d. Finish Coat: Tnemec Series 1077 Enduralume at Dry Film Thickness: 2.0-3.0 mils
 - e. Total Dry Film Thickness: 6.5-9.5 mils

Note: Some colors of Series 1077 will required a clear coat such as Tnemec 1079 Metallic Clearcoat

2. Exterior Exposed Galvanized & Non-Ferrous Metals - Shop applied primer; field touch-up and field applied finishes
 - a. Surface Preparation: Brush blast or mechanically abrade to remove all zinc salts and provide minimum 1 mil anchor pattern. Refer to Tnemec Tech Service Bulletin 10-78 for galvanizing.
 - b. Primer Coat: Tnemec Series V69F Hi-Build Epoxoline II at Dry Film Thickness: 2.0-3.0 mils. First Coat: Tnemec Series 1077 Enduralume at Dry Film Thickness: 2.0-3.0 mils
 - c. Total Dry Film Thickness: 4.0-6.0 mils

Note: Some colors of Series 1077 will required a clear coat such as Tnemec 1079 Metallic Clearcoat.

A. Aliphatic Acrylic Polyurethane- ***Designed to provide 8 to 10 years color and gloss retention depending the color intensity.***

1. Exterior Exposed Ferrous Metals- Shop applied primer; field touch-up and field applied finishes.
 - a. Surface Preparation: SSPC SP6 Commercial Blast Cleaning
 - b. Primer Coat: Tnemec Series 94-H₂O Hydro-Zinc at Dry Film Thickness: 2.5-3.5 mils
 - c. First Coat: Tnemec Series V69F Hi-Build Epoxoline II at Dry Film Thickness: 2.0-3.0 mils or Series V69/V69F Hi-Build Epoxoline II at 2.0-3.0 mils dft
 - d. Finish Coat: Tnemec Series 1095 Endura-Shield at Dry Film Thickness: 2.5-3.0 mils
 - e. Total Dry Film Thickness: 7.0-9.5 mils

2. Exterior Exposed Galvanized & Non-Ferrous Metals - Shop applied primer; field touch-up and field applied finishes.
 - a. Surface Preparation: Brush blast or mechanically abrade to remove all zinc salts and provide minimum 1 mil anchor pattern.
 - b. Primer Coat: Tnemec Series V69F Hi-Build Epoxoline II at Dry Film Thickness: 2.0-3.0 mils or at 2.0-3.0 mils dft . First Coat: Tnemec Series 1095 Endura-Shield at Dry Film Thickness: 2.0-3.0 mils
 - c. Total Dry Film Thickness: 4.0-6.0 mils

END OF SECTION

Specifier Notes: This product selection guide is written according to the Construction Specifications Institute (CSI) Format, including *Master Format*, *Section Format*, and *Page Format*, contained in the *CSI Manual of Practice*.

The section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the drawings.

Delete all “Specifier Notes” when editing this section.

Specifier Notes: This section covers Tnemec high-performance coating systems for commercial facilities.

This schedule is only a guide listing various coating system options for various environments and should not be used as a final specification. Additional coating systems not listed in this schedule are available, and may be more appropriate for your coating application. To finalize this coatings schedule, please contact www.rightergroup.com

Most coatings specified contain organic solvents. Consult Righter Group for compliance to local VOC regulations.

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