Tnemec Standard Architectural Paint Schedule

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes surface preparation and field application of high- performance coating systems to items and surfaces scheduled.
B. Related Sections include the following:

1. Division 5 Section "Structural Steel" for shop priming structural steel.
2. Division 5 Section "Formed-Metal Fabrications" for shop-primed ferrous metal.
3. Division 9 Section "Painting" for general field painting.

C. Alternates: Refer to Division 1 Section "Alternates" for description of Work in this Section affected by alternates.

1.3 DEFINITIONS

A. Standard coating terms defined in ASTM D 16 apply to this Section.
B. Gloss ranges used in this Section include the following:

1. Semi-gloss refers to medium-sheen finish with a gloss range between 30 and 65 when measured at a 60° meter.
2. High gloss refers to high-sheen finish with a gloss range more than 65 when measured at a 60° meter.

C. Environments: The following terms are used in Part 2 of this Section to distinguish between different corrosive exposures:

1. "Severe environments" are highly corrosive industrial atmospheres with sustained exposure to high humidity and condensation and with frequent cleaning using strong chemicals. Environments with heavy concentrations of strong chemical fumes and frequent splashing and spilling of harsh chemical products are severe environments.
2. "Moderate environments" are corrosive industrial atmospheres with intermittent exposure to high humidity and condensation, occasional mold and mildew development, and regular cleaning with strong chemicals. Environments with exposure to heavy concentrations of chemical fumes and occasional splashing and spilling of chemical products are moderate environments.
3. "Mild environments" are atmospheres with normal exposure to moderate humidity and condensation, occasional mold and mildew development, and infrequent cleaning with strong chemicals. Environments with low levels of mild chemical fumes and occasional splashing and spilling of chemical products are mild environments. Normal outdoor weathering is also considered a mild environment.

1.4 SUBMITTALS

A. Product Data: For each coating system indicated. Include block fillers and primers.

1. Material List: An inclusive list of required coating materials. Indicate each material and cross-reference the specific coating, finish system, and application. Identify each material by manufacturer's catalog number and general classification.
2. Manufacturer's Information: Manufacturer's technical information, including label analysis and instructions for handling, storing, and applying each material specified.

B. Certification by manufacturer that products supplied comply with requirements indicated that limit the amount of VOCs in coating products.

C. Samples for Initial Selection: Manufacturer's color charts showing the full range of colors available for each type of finish-coat material indicated.

1. After color selection, Architect will furnish color chips for surfaces to be coated.

D. Samples for Verification: For each color and material to be applied, with texture to simulate actual conditions, on representative samples of the actual substrate.

1. Provide stepped Samples defining 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.
2. List of material and application for each coat of each sample. Label each sample for location and application.
3. Submit samples on the following substrates for Architect's review of color and texture:

a. Concrete: Provide two 4 inch (100mm) square sample for each color and finish.
b. Concrete Masonry: Provide two 8-inch- (200-mm-) square samples of masonry, with mortar joint in the center, for each finish and color.
c. Wood: Provide two 12-inch- (300-mm-) square samples of each color and material on hardboard.
d. Ferrous and Nonferrous Metal: Provide two 4-inch- (100-mm-) square samples of flat metal and two 8-inch- (200-mm-) long samples of solid metal for each color and finish.

E. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

1.5 QUALITY ASSURANCE

A. Applicator Qualifications: Engage an experienced applicator who has completed high-performance coating system applications similar in material and extent to those indicated for Project and whose work has a record of successful in-service performance.

B. Source Limitations: Obtain primers and undercoat materials for each coating system from the same manufacturer as the finish coats.

C. Benchmark Samples (Mockups): Provide a full-coat benchmark finish sample of each type of coating and substrate required. Comply with procedures specified in PDCA P5. Duplicate finish of approved sample Submittals.

1. Architect will select one room, area, or surface to represent surfaces and conditions for application of each type of coating and substrate.

a. Wall Surfaces: Provide samples on at least 100 sq. ft. (9 sq. m) of wall surface.
b. Small Areas and Items: Architect will designate items or areas required.

2. After permanent lighting and other environmental services have been activated, apply coatings in this room or to each surface as specified. Provide the required sheen, color, and texture of each surface.

    a. After finishes are accepted, Architect will use the room or surface to evaluate coating systems of a similar nature.

3. Final approval of colors will be from benchmark samples.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to Project site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label with the following information:

1. Name or title of material.
2. Product description (generic classification or binder type).
3. Manufacturer's stock number and date of manufacture.
4. Contents by volume, for pigment and vehicle constituents.
5. Thinning instructions.
6. Application instructions.
7. Color name and number.
8. Handling instructions and precautions.

B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 60° F. Maintain containers used in storage in a clean condition, free of foreign materials and residue.

1. Protect materials from freezing. Keep storage area neat and orderly. Remove oily rags and waste daily. Take necessary measures to ensure that workers and work areas are protected from fire and health hazards resulting from handling, mixing, and applying coatings.

1.7 PROJECT CONDITIONS

A. Apply coatings only when temperature of surfaces to be coated and surrounding air temperatures are between 60° and 95° F.

B. Do not apply coatings in snow, rain, fog, or mist; when relative humidity exceeds 85% at temperatures less than 5° F above the dew point; or to damp or wet surfaces.

1. Allow wet surfaces to dry thoroughly and attain temperature and conditions specified before proceeding with or continuing coating operation.

C. Except as otherwise specified, materials shall be first line products of the following manufactures:

1. Special Coatings:
    a. Tnemec Company

1.8 MATERIALS

A. Products specified are as manufactured by those of Tnemec Company unless otherwise indicated; similar products of acceptable manufacturers listed in Paragraph 1.7 may be furnished in lieu of those listed. Tnemec products are listed to establish a baseline of performance criteria, other manufacturers need to meet or exceed this noted performance.

1. Quality: Select primary products of the system from the products of a single manufacturer.

PART 2 – EXECUTION

2.1 INSPECTION OF SURFACES

A. Examine surfaces to be coated and report any conditions that would adversely effect the appearance or performance of the coating system and which cannot be put into an acceptable condition by the preparatory work specified herein.

B. Do not proceed with surface preparation and application until surfaces are acceptable. Commencement of application of coating to any surface shall be construed as acceptance or surfaces as being proper to receive the finish, and any defects in work resulting from such accepted surfaces shall be corrected by the applicator without additional cost to the Owner.

2.2 SURFACE PREPARATION

A. General:

1. Dislodge dirt, plaster nibs, plaster 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 mineral spirits or a hot trisodium phosphate solution followed by a clean water rinse.
3. Verify that surfaces to be coated are dry, clean and free of dust, dirt, oil, wax, grease or other contaminants.
4. Apply tests patch to existing painted surfaces to check adhesion. Remove any loose paint and spot prime.

B. Gypsum Board:

1. Fill nicks, scratches, holes and uneven spots with Series 215 Tape Coat.

C. Protection: Protect work of other trades, whether to be painted or no, against damage by painting and finishing work. Correct any damage by cleaning, repairing or replacing, and repainting as acceptable to Architect.

1. Provide “Wet Paint” signs as required to protect newly painted finishes. Remove temporary protective wrappings provided by others for protection of their work after completion of painting operations.
2. At the completion of work of other trades, touch-up and restore all damaged or defaced painted surfaces.

2.3 FINISH PAINTING SCHEDULE

A. The following finish systems refer to products manufactured by Tnemec, unless indicated otherwise. Provide these systems or comparable systems from any specified manufacturer.

<u>EXTERIOR</u>

1. <u>EXTERIOR CMU, STUCCO, CONCRETE, AND PREVIOUSLY PAINTED MASONRY</u>

Coat 1: Tnemec 151 Elasto-Grip 3.04 – 4.0 mils DFT
Coat 2: Tnemec 156 Enviro-Crete 8.0 – 10.0 mils DFT
Coat 3: Tnemec 156 Enviro-Crete 8.0 – 10.0 mils DFT

2. EXTERIOR CONCRETE AND CMU TO BE STAINED

   Coat 1: Chemprobe Prima-Pel H_2O 100 – 125 sq/gal
   Coat 2: Chemprobe Conformal Stain 100 – 110 sq/gal

3. EXTERIOR FERROUS METAL
   (Surface Preparation: SSPC-SP #6)

   Coat 1: Tnemec Series 394 Omnithane (shop applied) at 4.0 mils DFT
   Coat 2: Tnemec Series 27 WB Typoxy at 2.5-3.0 mils DFT
   Coat 3: Tnemec Series 1075UEndura-Shield at 3.0 mils DFT
   Coat 4: Tnemec Series 1070 Fluoronar at 2.0 mils DFT

4. EXTERIOR NON-FERROUS METAL
   (Surface Preparation: SSPC-SP #1 followed by SSPC-SP3)

   Coat 1: Tnemec Series 27WB Typoxy at 3.0-4.0 mils DFT
   Coat 2: Tnemec Series 1075U Endura-Shield III at 2.5-3.0 mils DFT
   Coat 3: Tnemec Series 1070 Fluoronar at 2.0 mils DFT

5. EXTERIOR GALVANIZED METAL
   (Surface Preparation: SSPC-SP7 Brush-off Blast)

   Coat 1: Tnemec Series 27WB Typoxy at 2.5 – 3.0 mils DFT
   Coat 2: Tnemec Series 1075U Endura-Shield at 2.5 – 3.0 mils DFT
   Coat 3: Tnemec Series 1070 Fluoronar at 2.0 mils DFT

6. EXTERIOR ALUMINUM
   (Surface Preparation: SSPC-SP #1 and sanding with Scotch Bright pads)

   Coat 1: Tnemec Series N69 Hi-Build Epoxoline at 2.0 mils DFT
   Coat 2: Tnemec Series 1070 Fluoronar at 2.0 mils DFT

7. SLURRYWALLS TO BE COATED IN GARAGE

   Surface Preparation- Pressure wash at 4000 psi
   Coat 1: RD Coating ElastoMetal at 4.0-6.0 Mils DFT
   Coat 2: RD Coating ElastoMetal at 6.0-8.0 Mils DFT

INTERIOR FINISHES

1. INTERIOR CONCRETE AND CMU Outside Vivarium and clean spaces
   (Epoxy System)

   Coat 1: Tnemec Series 130 Envirofill at 100 sq. ft. per gallon
   Coat 2: Tnemec Series 27WB Typoxy at 10.0 mils DFT
   Coat 3: Tnemec Series 1081 Endurashield WB at 2.5-3.0 mils DFT

2. INTERIOR CONCRETE FLOORS (Moderate Traffic)
   Confirm appropriate surface preparation based on slab condition

   Coat 1: Tnemec Series 287 Enviro-Tread at 3.0 mils DFT
   Coat 2: Tnemec Series 287 Enviro-Tread at 3.0 mils DFT

3. INTERIOR MISCELLANEOUS METAL
(Surface Preparation: SSPC-SP #3)

Coat 1: Tnemec Series 27WB Typoxy at 4.0 mils DFT
Coat 2: Tnemec Series 1081 Endurashield at 2.0 mils DFT
Coat 3: Same as Coat 2

4. INTERIOR FERROUS METAL, NON-FERROUS AND GALVANIZED METAL
(Surface Preparation: SSPC-SP #1 Solvent Wipe and SSPC-SP3 Power Tool)

Coat 1: Tnemec Series 27WB at 4.0 mils DFT
Coat 2: Tnemec 1029 Enduratone at 2.0 mils DFT
Coat 3: Tnemec 1029 Enduratone at 2.0 mils DFT

5. INTERIOR ELEVATOR DOORS
(Metallic Urethane Finish)

Prep: Fill nicks, dents, scratches with auto body
Sand 1: Sand smooth
Coat 1: Tnemec Series 27 WB Typoxy at 2.0 mils DFT
Sand 2: Sand smooth with wet/dry paper
Coat 2: Tnemec Series 1075 Endura-Shield at 2.0 mils DFT
Coat 3: Tnemec Series 1077 Enduralume at 2.0 mils DFT

6. INTERIOR/EXTERIOR EXPOSED STEEL DECKS ,DUCTS AND GARAGE CEILING AND ALL FIREPROOFING TO BE COATED EXPOSED TO VIEW ,.

Coat 1: Tnemec Series 115 Unibond WB at 2.5 – 3.0 mils DFT
Note – Apply two coats on Fireproofing

7. CONCRETE FLOORS TO RECEIVE HIGH VEHICLE TRAFFIC AND ABRASION

Coat 1: Tnemec 201 Epoxoline at 4.0 – 6.0 mils DFT
Coat 2: Tnemec 210 Even-Flow at 60.0 – 80.0 mils DFT
Coat 3: Tnemec 297 Tneme-Glaze at 2.0– 3.0 mils DFT

8. DRYWALL TO RECEIVE EPOXY COATINGS-Outside of Vivariums

Coat 1: Tnemec 27WB Typoxy at 4.0 – 6.0 mils DFT
Coat 2: Tnemec 27WB Typoxy at 4.0 – 6.0 mils DFT
Coat 3: Tnemec 1081 Endurashield at 2.0-3.0 mils DFT

9. CMU AND CONCRETE TO RECEIVE HIGH PERFORMANCE ACRYLIC SYSTEM

Coat 1: Tnemec 27 WB Typoxy at 150 sq ft /gal
Coat 2: Tnemec 1028/1029 Tufcryl at 2 – 3 mils DFT
Coat 3: Tnemec 1028/1029 Tufcryl at 2 – 3 mils DFT

10. MECHANICAL ROOM FLOOR SYSTEM

Coat 1: Tnemec Series 203 Epoxoprime at 4.0 – 6.0 mils DFT
Coat 2: Tnemec Series 206 Flexible Underlayment at 50 – 80 mils DFT
Coat 3: Tnemec Series 297 Enviro-Tread at 3.0 mils DFT

11. DUROK Masonry Board or HIGH IMPACT Gypsum Wall Board with Fiberglass Reinforced Epoxy in Vivarium Lab and Clean Spaces

    SYSTEM #1: FIBERGLASS REINFORCED EPOXY GLAZE

Substrate:	Cement Board/High Impact Drywall
Base Coat**:	Series 218 MortarClad applied to achieve a filled, smooth surface approximately 1/16 inch. Fiberglass joint tape to be embedded with 218 Series.
Intermediate Bedding Coat:	Series 280 Tneme-Glaze applied at a rate of 125 sq. ft. per gallon into the wet film imbed Series 273 Fiberglass Mat. Overlap and double cut seams, smoothing the mat to saturation with additional application of Series 280 Tneme-Glaze at a rate of 150 sq. ft. per gallon. Following bedding coat cure, sand the surfaces to remove any raised fiber and or excess material.
Intermediate Filling Coat:	Series 280 Tneme-Glaze applied at a rate of 150 sq. ft. per gallon, sand cured film before top coating with final coat.
Finish Coat:	Series 1081 Endurashield WB applied to achieve 2.0 – 3.0 mils dry DFT

Color as selected by owner.

**** Note**: For use when cement board and CMU are specified.

12. CMU TO BE COATED (COATING SYSTEM NO MAT-REINFORCEMENT)

Block Fill:	Tnemec 130 Envirofill at 100 square feet per gallon
Prime Coat:	Tnemec 27 WB Typoxy to all surfaces at 10.0 mils DFT
First Coat:	Tnemec 27 WB Typoxy at 10.0 mils DFT per coat
Topcoat:	Tnemec 1081 Endurashield WB at 2.0 – 3.0 mils DFT

13. SYSTEM #2 CONCRETE CAST IN PLACE AND MASONRY BLOCK (USING FIBERGLASS REINFORCED WALL SYSTEM)

Trowel Fill Coat:	Tnemec Series 218 Mortar Clad applied at minimum rate of 20–40 sq/ft per gallon making substrate monolithic .
Intermediate Bedding Coat:	Series 280 Tneme-Glaze applied at a rate of 125 sq. ft. per gallon. Into the wet film imbed Series 273 Fiberglass Mat. Overlap and double cut seams, smoothing the mat to saturation with Series 280 Tneme-Glaze applied at a rate of 150 sq. ft. per gallon. Following cure, sand the surfaces to remove any raised fiber and or excess material.
Topcoat:	Apply additional coat of 280 Tneme-Glaze at a rate of 150 sq. ft. per gallon. Sand after cure before topcoating.
Finish Coat:	Series 1081 roller applied to achieve minimum 2.0 – 3.0 dry film thickness.

14. DRYWALL CEILINGS TO BE COATED WITH HIGH PERFORMANCE GLAZE WALL COATING (UNREINFORCED)

Prime Coat:	Tnemec 201 Epoxoprime at 4.0– 6.0 mils DFT
Intermediate Coat:	Tnemec 280 Tneme-Glaze at 6.0 – 8.0 mils DFT
TopCoat:	Tnemec 1081 at 2.0 – 3.0 mils DFT

15. DRYWALL AND CEILINGS – ANTIBACTERIAL COATING-(Drywall, Cement Board, MDO Board)

Prime Coat:	Tnemec 151 Elasto-Grip at 1.0 – 1.5 mils DFT
Topcoats:	Tnemec 158 Bio-Lastic at 8 mils minimum per coat Apply two coats. Must meet 14.0 mils DFT

16. CMU TO RECEIVE ANTIBACTERIAL COATING:

Prime Coat:	Tnemec 130 Envirofil
1st Coat:	Tnemec 151 Elastogrip at 1.0 – 1.5 mils
2nd Coat:	Tnemec 158 Biolastic at 8.0 – 9.0 mils DFT
3rd Coat:	Same as second coat

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 specification 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 specification are available, and may be more appropriate for your coating application. To finalize this specification, please contact www.rightergroup.com

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

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