# PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 and 01 Specification Sections, apply to this Section.

## 1.2 SUMMARY

A. Section Includes the following:
   1. Coating systems for gypsum board walls and ceiling.

B. Related Requirements:
   1. Section 018113 “Sustainable Design Requirements.”
   2. Section 099123 “Interior Painting.”

## 1.3 PRE-APPLICATION MEETINGS

A. Pre-application Conference: Conduct conference at Project site. Convene a pre-application meeting 2 weeks before start of application of coating system. Require attendance of parties directly affecting work of this section, including Contractor, Architect, applicator, and manufacturer’s representative. Review the following:
   1. Environmental requirements.
   2. Protection of surfaces not scheduled to be coated.
   3. Surface preparation.
   4. Application.
   5. Repair.
   6. Field quality control.
   7. Cleaning.
   8. Protection of coating systems.
   9. Coordination with other work.

## 1.4 REFERENCES

A. TTM 59 - Covered Spot Test

B. ASTM D 4259 – Standard Practice for Abrading Concrete.

C. ASTM D 4263 - Indicating Moisture in Concrete by the Plastic Sheet Method.

D. ASTM F 1869 - Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.

E. International Concrete Repair Institute (ICRI) Guideline No. 03732 - Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays.

## 1.5 DEFINITIONS

A. Definitions of Painting Terms: ASTM D 16, unless otherwise specified.

B. Dry Film Thickness (DFT): Thickness of a coat of paint in fully cured state measured in mils (1/1000 inch).

1.6 ACTION SUBMITTALS

A. Product Data: Submit manufacturer's product data for each coating, including generic description, complete technical data, surface preparation, and application instructions.

B. LEED Submittals: Credits EQc2 and EQc4.2: Refer to Division 01 Section “Sustainable Design Requirements” for additional submittal requirements.

C. Color Samples: Submit manufacturer’s color samples showing full range of standard colors.

1.7 INFORMATIONAL SUBMITTALS

A. Manufacturer’s Quality Assurance: Submit manufacturer’s certification that coatings comply with specified requirements and are suitable for intended application.

B. Applicator’s Quality Assurance: Submit list of a minimum of 5 completed projects of similar size and complexity to this Work. Include for each project:
1. Project name and location.
2. Name of owner.
3. Name of contractor.
4. Name of architect.
5. Name of coating manufacturer.
6. Approximate area of coatings applied.
7. Date of completion.

C. Warranty: Submit manufacturer’s standard warranty.

1.8 QUALITY ASSURANCE

A. Manufacturer’s Qualifications:
1. Specialize in manufacture of coatings with a minimum of 10 years successful experience.
2. Able to demonstrate successful performance on comparable projects.
3. Single Source Responsibility: Coatings and coating application accessories shall be products of a single manufacturer.

B. Applicator’s Qualifications:
1. Experienced in application of specified coatings for a minimum of 5 years on projects of similar size and complexity to this Work.
2. Applicator's Personnel: Employ persons trained for application of specified coatings.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying:
1. Coating or material name.
2. Manufacturer.
3. Color name and number.

4. Batch or lot number.
5. Date of manufacture.
6. Mixing and thinning instructions.

B. Storage:
1. Store materials in a clean dry area and within temperature range in accordance with manufacturer's instructions.
2. Keep containers sealed until ready for use.
3. Do not use materials beyond manufacturer’s shelf life limits.

C. Handling: Protect materials during handling and application to prevent damage or contamination.

1.10 ENVIRONMENTAL REQUIREMENTS

A. Weather:
1. Air and Surface Temperatures: Prepare surfaces and apply and cure coatings within air and surface temperature range in accordance with manufacturer’s instructions.
2. Surface Temperature: Minimum of 5 degrees F above dew point.
3. Relative Humidity: Prepare surfaces and apply and cure coatings within relative humidity range in accordance with manufacturer’s instructions.

B. Ventilation: Provide ventilation during coating evaporation stage in confined or enclosed areas in accordance with manufacturer’s instructions.

C. Dust and Contaminants:
1. Schedule coating work to avoid excessive dust and airborne contaminants.
2. Protect work areas from excessive dust and airborne contaminants during coating application and curing.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Products: Subject to compliance with requirements, products that may be incorporated into the Work include products indicated in the coating system descriptions or equal products by manufacturer listed below.
1. StrataShield Division of Tnemec Company, Inc. (Tnemec) (Basis-of-Design)
2. StonHard
3. Or Equal.

2.2 PERFORMANCE CRITERIA

A. Chemical Resistance - TTM-59 Covered Spot Test: Wall System Finish/topcoat shall be resistant to the following disinfectant / cleaning solutions for a minimum of 24 hours:
1. Acidulate 28
2. Enviro-Kleen 120
3. MB-10
4. Sani-Plex128
5. LPH,
6. Spor-Klenz,

7. Vesphene II

B. Paints and Coatings shall comply with the VOC limits per CalGreen Table 5.504.4.3.

C. Aerosol paints and coatings shall meet the product-weight MIR limits of ROC per CalGreen Table 5.504.4.3.1.

D. LEED Material Credits EQc2 and EQc4.2: Refer to Division 01 Section “Sustainable Design Requirements” for additional product requirements.

E. Abrasion Resistance - ASTM D 4060 Tabor Test: Wall System topcoat shall have no more than 31 mg. loss after 1,000 cycles.

F. Scrubbability - ASTM D 4213: Wall System topcoat shall have no more than 80 mg. loss after 1,000 cycles.

2.3 GYPSUM BOARD WALLS AND CEILINGS

A. Interior Exposure. Waterborne epoxy/urethane system, LEED and SCAQMD compliant system.
1. System Type: Low Odor, Water Borne Epoxy / Ceramic-Modified Waterborne Urethane.
a. Surface Preparation: Tnemec Clean & Dry. Per MFG.
b. Primer: Tnemec Series 287 Enviro-Pox . DFT 2.0 to 4.0 Mils.
c. Intermediate Coat: Tnemec Series 287 Enviro-Pox . DFT 2.0 to 4.0 Mils.
d. Finish Coat: Tnemec Series 297 Enviro-Glaze. DFT 2.0 to 3.0 Mils.
e. Total DFT: 6.0 to 11.0 Mils.

2.4 ACCESSORIES

A. Coating Application Accessories:
1. Accessories required for application of specified coatings in accordance with manufacturer’s instructions, including thinners.
2. Products of coating manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions under which coating systems are to be applied. Notify Architect of areas or conditions not acceptable. Do not begin surface preparation or application until unacceptable areas or conditions have been corrected.

3.2 PROTECTION OF SURFACES NOT SCHEDULED TO BE COATED

A. Protect surrounding areas and surfaces not scheduled to be coated from damage during surface preparation and application of coatings.

B. Immediately remove coatings that fall on surrounding areas and surfaces not scheduled to be coated.

3.3 SURFACE PREPARATION

A. Ensure surfaces are clean, dry, and free of oil, grease, dirt, dust, and other contaminants.

3.4 APPLICATION

A. Apply coatings in accordance with manufacturer's instructions.

B. Mix and thin coatings, including multi-component materials, in accordance with manufacturer’s instructions.

C. Keep containers closed when not in use to avoid contamination.

D. Do not use mixed coatings beyond pot life limits.

E. Use application equipment, tools, pressure settings, and techniques in accordance with manufacturer’s instructions.

F. Uniformly apply coatings at spreading rate required to achieve specified DFT.

G. Apply coatings to be free of film characteristics or defects that would adversely affect performance or appearance of coating systems. Coating system must appear smooth, impervious, free of cracks and crevices.

H. Each coat of the epoxy wall system shall be slightly different color.

3.5 REPAIR

A. Materials and Surfaces Not Scheduled to Be Coated: Repair or replace damaged materials and surfaces not scheduled to be coated.

B. Damaged Coatings: Touch-up or repair damaged coatings. Touch-up of minor damage shall be acceptable where result is not visibly different from adjacent surfaces. Recoat entire surface where touch-up result is visibly different, either in sheen, texture, or color.

C. Coating Defects: Repair in accordance with manufacturer’s instructions coatings that exhibit film characteristics or defects that would adversely affect performance or appearance of coating systems.

3.6 FIELD QUALITY CONTROL

A. Inspector’s Services:
   1. Verify coatings and other materials are as specified.
   2. Verify surface preparation and application are as specified.
   3. Verify DFT of each coat and total DFT of each coating system are as specified using wet film and dry film gauges.
   4. Coating Defects: Check coatings for film characteristics or defects that would adversely affect performance or appearance of coating systems. Coating system must appear smooth, impervious, free of cracks and crevices.
   5. Report:
      a. Submit written reports describing inspections made and actions taken to correct nonconforming work.
      b. Report nonconforming work not corrected.
      c. Submit copies of report to Architect and Contractor.

B. Manufacturer's Field Services: Manufacturer's representative shall provide technical assistance and guidance for surface preparation and application of coating systems when requested.

3.7 CLEANING

A. Remove temporary coverings and protection of surrounding areas and surfaces.

3.8 PROTECTION OF COATING SYSTEMS

A. Protect surfaces of coating systems from damage during construction.

END OF SECTION