

## **SPEC-FINISH™ COATED CONCRETE MASONRY WALL SYSTEM**

by **CONCRETE PRODUCTS GROUP, LLC**

The following Guide Specification describes **Spec-Finish™ Architectural Concrete Masonry Units**, consisting of a unique concrete mix design manufactured with **Spec-Finish Preconditioner** designed specifically to receive **Spec-Finish™ Coatings**.

**Spec-Finish™ Architectural CMU's** and **Spec-Finish™ Coatings** can also help contribute to LEED Certification.

**Spec-Finish™ Architectural CMU's** are to be installed by a professional masonry contractor under a standard masonry contract.

**Spec-Finish™ Coatings** are to be applied by a professional painting contractor under a standard painting contract.

Proper coordination between Division 9 Sections and the **Spec-Finish™** portion of Division 4 is required.

### **SECTION 042005: SPEC-FINISH™ ARCHITECTURAL CONCRETE MASONRY UNITS**

#### **PART 1 - GENERAL**

##### **1.1 SUMMARY**

- A. This Section describes:

**Spec-Finish™ Architectural Concrete Masonry Units (Spec-Finish™ CMU)**

by Concrete Products Group, LLC (CPG) companies.

**Spec-Finish™ Preconditioner** by ACM Chemistries, Inc.

**Spec-Finish™ Coatings** by TNEMEC Company, Inc.

##### **1.2 RELATED SECTIONS**

- A. Division 04 Section "Unit Masonry" for general concrete masonry unit products and assembly.

1.3 REFERENCES

- A. ASTM C90
- B. ASTM C270

1.4 PERFORMANCE REQUIREMENTS

- A. Provide **Spec-Finish™ CMU** by **Concrete Products Group, LLC** (800-789-0872) that contain **Spec-Finish™ Preconditioner** by **ACM Chemistries, Inc.** (877-226-1766).
- B. **Spec-Finish™ CMU** shall be produced by an authorized CPG company.

[Note: what follows is a complete list of authorized **Spec-Finish™ CMU** producers nationwide]

A. Jandris & Sons, Inc. Gardner, MA	978-632-0089
Allied Concrete Products, LLC, Chesapeake, VA	800-564-7300
Amcon Block, St. Cloud, MN,	320-251-6030
Barnes & Cone, Syracuse, NY,	315-437-0305
Basalite Concrete Products, LLC, Dixon, CA	707-678-1901
Block USA, Birmingham, AL	800-338-7902
Fizzano Brothers Concrete Products, Inc., Crum Lynne, PA,	610-833-1100
Headwaters Construction Materials, Houston, TX,	888-464-9341
Midwest Products Group, Bridgeton, MO,	800-635-7110
Oberfield's, Inc., Delaware, OH,	740-369-7644
Orco Block Co., Inc., Stanton, CA,	714-527-2239

- C. Provide **Spec-Finish™ Coating** by **TNEMEC Company, Inc.** (877-226-1766).

1.5 SUBMITTALS

- A. Product Data: Provide ASTM C140 test reports for **Spec-Finish™ CMU** and MSDS sheets for **Spec-Finish™ Preconditioner** and **Spec-Finish™ Coatings**.

- B. Manufacturer's Application Instructions: Provide application instructions for **Spec-Finish™ Coatings** from TNE MEC Company Inc.
- C. Samples for Initial Selection: Provide **Spec-Finish™ Coating** color selection from TNE MEC Company Inc. for initial color selection.
- D. Samples for Verification: For each **Spec-Finish™ Coating** color indicated or selected.
- E. LEED Data:
  - 1. Recycled Content: For Credits MR 4.1 and Credit MR 4.2, provide product data and documentation indicating percentage (see section 2.1 A 1. c) by weight of pre-consumer or post-consumer recycled content in **Spec-Finish™ CMU**. Also provide statement indicating cost of pre-consumer or post-consumer recycled content.
  - 2. VOC Content: For Credit EQ 4.2, provide product data indicating VOC content in **Spec-Finish™ Coating**.
- F. Material Certificates: **Spec-Finish™ Preconditioner**. Include statement of material properties indicating compliance with requirements including compliance with standards and type designations within standards.
- G. Qualification Data: **Spec-Finish™ Coating** applicator (painting contractor) shall provide proof of capability by TNE MEC Company Inc.

#### 1.6 QUALITY ASSURANCE

- A. Sample Panel: Build sample panel to verify overall quality of masonry construction (including mortar joint workmanship), color, final finish and to demonstrate aesthetic effects. Prior to application of **Spec-Finish™ Coating**, clean sample panel in accordance with Section 3 Execution, Item 3.3, **Spec-Finish™ CMU Clean Down**. Apply benchmark samples of **Spec-Finish™ Coating** of each color selected to verify preliminary selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution. Sample panel will not be taken down or destroyed until specifically approved by the Architect.
  - 1. Build sample panels in size approximately 48 inches long by 48 inches high or other size if directed by Architect.

#### 1.7 QUALIFICATIONS

- A. Applicator: The painting contractor shall have been qualified in the application of **Spec-Finish™ Coatings** by TNE MEC Company, Inc.; un-qualified painting contractors will not be accepted.

## 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Store **Spec-Finish™ CMU's** on elevated platforms in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied. If units become wet, do not install until they are dry. Take care to not chip or damage **Spec-Finish™ CMU's** during staging process at job site. Do not install chipped or damaged units.
- B. Store **Spec-Finish™ Coating** materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F (7 deg C).
  - 1. Maintain containers in clean condition, free of foreign materials and residue.

## 1.9 PROJECT CONDITIONS

- A. Verify conditions with the TNE MEC Company Representative prior to applying **Spec-Finish™ Coatings**.
- B. Apply **Spec-Finish™ Coatings** only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F (10 and 35 deg C).
- C. Do not apply **Spec-Finish™ Coatings** in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

## PART 2 - PRODUCTS

### 2.1 PRECONDITIONED CONCRETE MASONRY UNITS (CMU)

- A. Products: **Spec-Finish™ CMU** by CPG supplied by an authorized producer listed in Section 1.4 Performance Requirements:
  - 1. Concrete Masonry Units: ASTM C 90.
    - a. Unit Compressive Strength: Provide units with minimum average net-area compressive strength and f'm value as required by Structural Engineer for location and purpose.
    - b. Weight classification: Verify with authorized **Spec-Finish™ CMU** producer
    - c. Recycled Content: If project is pursuing LEED Certification, verify percentage of pre-consumer or post-consumer recycled content possible in the **Spec-Finish™ CMU** with the authorized producer.

Percentages of recycled content possible will vary in different regions.

- B. Preconditioner: **Spec-Finish™ Preconditioner** by ACM Chemistries, Inc.

## 2.2 MORTAR

- A. Type N or S mortar, meeting ASTM C270

## 2.3 **SPEC-FINISH™ COATING**

- A. **Spec-Finish™ Coating** by TNEMEC Company, Inc.

[Note: Architect can select one or more from the list that follows as required to meet project requirements]:

Enviro Standard: A [LEED compliant] water-based, high performance system designed to ensure a smooth, cleanable surface.

Enviro Custom: A [LEED compliant] water-based, high performance system for unique exposures and conditions. (Consult with local TNEMEC representative)

Vivarium Standard: A high performance coating system for optimum stain and chemical resistance.

Vivarium Custom: A high performance system for unique requirements in difficult environments. (Consult with local TNEMEC representative)

- B. VOC Content: If project is pursuing LEED Certification provide **Spec-Finish™ Coatings** that comply with the following limits for VOC content, exclusive of colorants added to a tint base, when calculated according to 40 CFR 59, Subpart D (EPA Method 24), as required for EQ Credit 4.2:
  - a. Flat Paints, Coatings, and Primers: VOC content of not more than 50 g/L.
  - b. Non-flat Paints, Coatings, and Primers: VOC content of not more than 150 g/L

## PART 3 - EXECUTION

### 3.1 GENERAL ERECTION REQUIREMENTS

- A. Refer to Related Sections as indicated in this specification for general erection requirements.

### 3.2 MORTAR JOINTING FOR **SPEC-FINISH™ CMU**

- A. Lay **Spec-Finish™ CMU** in plane, while maintaining 3/8 inch mortar joints. Mortar joint variations shall be no more than plus or minus 1/8 inch.
- B. Tool all mortar joints to a slightly concave 'C' profile when mortar is thumb print hard using a jointer larger than the joint thickness unless otherwise indicated.

### 3.3 **SPEC-FINISH™ CMU CLEAN DOWN**

- A. Refer to NCMA TEK 8-4A.
  - 1. Follow procedures of "HAND CLEANING" method.
- B. "WATER, CHEMICAL or ABRASIVE CLEANING" methods are prohibited.

### 3.4 EXAMINATION PRIOR TO COATING APPLICATION

- A. Begin coating application only after surfaces are completely dry and Architect and TNEMEC Company, Inc. have approved **Spec-Finish™ CMU** walls to receive **Spec-Finish™ Coating**.
  - 1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

### 3.5 PREPARATION

- A. Comply with TNEMEC Company's written instructions and recommendations applicable to substrate and **Spec-Finish™ Coating**.
- B. Clean substrates of substances that could impair bond of **Spec-Finish™ Coating** according to manufacturer's recommended practices, including dirt, oil, grease, and incompatible paints and encapsulants.

### 3.6 **SPEC-FINISH™ COATING APPLICATION**

- A. **Spec-Finish™ Coating** is specifically designed for application to **Spec-Finish™ CMU**. Take care to coordinate the work of this Section with Division 09 Sections.
- B. Apply **Spec-Finish™ Coating** according to manufacturer's written instructions. Use applicators and techniques suited for coating and substrate.
- C. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.

- D. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- E. Apply coating to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- F. Thickness: Apply **Spec-Finish™ Coating** in wet-film thicknesses recommended by TNEMEC Company, Inc.

### 3.7 FIELD QUALITY CONTROL

- A. Pre-Construction Meeting: Arrange for a meeting between the Architect, Masonry Contractor, Painting Contractor, **Spec-Finish™ CMU** Producer, and TNEMEC Company Representative to discuss the concrete masonry unit construction, mortar joint workmanship, and cleaning prior to beginning **Spec-Finish™ CMU** wall construction.
- B. Pre-Coating Meeting: Arrange for a meeting between the Architect, Masonry Contractor, Painting Contractor, **Spec-Finish™ CMU** Producer and TNEMEC Company Representative to discuss concrete masonry unit construction, mortar joints and cleaning prior to applying **Spec-Finish™ Coating**.

### 3.8 CLEANING

- A. Protect the work of other trades against damage from paint application. Correct damage to the work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- B. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

END OF SECTION 042005