

**096320 DIAMOND-POLISHED SELF-LEVELING CONCRETE OVERLAY**

**PART I GENERAL**

**1.1 RELATED DOCUMENTS**

A. Drawings and general provisions of the contract, including General and Supplementary Conditions, apply to this section.

**1.2 SUMMARY**

A. This section specifies material for self-leveling topping with diamond polished finish for interior purposes.

**1.3 SUBMITTALS**

A. Substitutions: Requests for substitution must be received by Architect at least 14 days prior to bid opening and shall be accepted only from prime bidders.

**1.4 QUALITY ASSURANCE**

A. References: Comply with the following unless modified by this specification.

1. ASTM C109/C109M-02 Standard Test Method for Compressive Strength of Self Leveling Concrete Overlay (Using 2-in. Cube Specimens)
2. ASTM C882-99 Standard Test Method for Bond Strength of Epoxy-Resin Systems Used With Concrete By Slant Shear
4. ASTM C928-00 Standard Specification for Packaged, Dry, Rapid-Hardening Cementitious Materials for Concrete Repairs

**1.5 DELIVERY, STORAGE, AND HANDLING**

A. Delivery: Deliver materials to jobsite in original, unopened, undamaged containers that clearly show the manufacturer's name, product name, and batch number.

B. Storage: Store material in a dry area off the ground protected from rain, snow, and other sources of moisture. Protect material from temperature extremes.

**PART 2 PRODUCTS**

**2.1 MATERIAL**

A. Diamond Polished Self-Leveling overlay finish shall be a proprietary blend of cement, sand and binders with a compressive strength of 6500 psi at 28 days. Material shall be furnished and installed by Get Real Surfaces, Inc. (845-452-3988).

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## PART 3 EXECUTION

### 3.1 SURFACE PREPARATION

- A. Mechanically remove loose, unsound, contaminated concrete.
- B. The surface shall have a profile of ICRI CSP 3-5.
- C. Concrete must be free of materials such as paint, oil, curing compound, bond breaker, etc. that will inhibit bonding.
- D. Thoroughly clean extraneous material such as dirt, loose chips, and dust from concrete surface. If compressed air is used, it shall be free of oil.

### 3.2 MIXING

- A. Organize personnel and equipment before mixing.
- B. Use 4.5 quarts of water per 50 pound bag of material.
- C. Mixed material should have a temperature of about 70°F. Warmer material will set faster than expected and cooler material will have slower strength gain. Control the mixed temperature by protecting the bags of repair material from temperature extremes and adjust the mixed temperature by using hot or cold water.
- D. Add potable water first then add any dye or approved color additives if necessary then add repair material while mixing mechanically in a mortar mixer or with a drill and mixing paddle.
- E. Do not add any other admixtures. Do not add sand, aggregate, or cement.
- F. Mix for 3 to 5 minutes with a shear type mixer to achieve a uniform, lump-free consistency. Avoid mixers that entrap large amounts of air.
- G. Do not re-temper.

### 3.3 PLACEMENT

- A. Pour or pump the material with a minimum thickness of 3/8" and a maximum thickness of 1.5" onto the prepared and primed substrate.
- B. Use a spreader or gauge rake to level the material.
- C. Use a smoother or other tools to coax the material into place as required.
- D. Use a porcupine roller if necessary to minimize air bubbles.
- E. For thicknesses greater than 1.5", extend each 50 pound bag of material with 25 pounds of clean 3/8" pea gravel. Place the extended material to 1/2" below desired floor level and then place neat material for the final 1/2". Prepare the substrate as in Section 3.1 prior to the application of any additional coats.
- F. Place material only if surface and ambient temperatures are above 45°F and rising.

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G. Protect adjacent surfaces with drop cloths, waterproof paper, or other means to maintain them free of material splashes, water, and debris.

H. Place material immediately after mixing.

I. Honor all joints.

J. Apply sealer, if specified, 12 hours or more after self-leveling material hardens per sealer manufacturer's recommendations.

K. For Diamond Polished finish, if applicable, allow material to cure for 24 hours prior to grinding and polishing. Follow Get Real Surfaces' Diamond Polishing specifications to match approved architect's sample.

### 3.4 CURING

A. No curing required under normal conditions. However, if used in excessively dry, windy, hot, or sunny conditions, apply water mist to the surface as soon as it can be done without marring the surface and continue until 1 hour after initial set.

### 3.5 CLEAN UP

A. Do not allow buildup of hardened repair material in the mixer, since this creates inefficient mixing and the heat generated accelerates later batches.

B. Clean all tools immediately after use.

C. Clean excess material from surrounding areas immediately.

END OF SECTION

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