

# Micro-Top<sup>®</sup>

## Suggested Guideline Specification

### Notes:

1) A specifier is within his rights to issue a proprietary specification that names only one brand. If in the informed and professional judgment of the specifier, his client's needs will be best served by naming a particular brand, then he has the responsibility to limit his specification to one source. This practice is even acceptable on publicly funded projects. This principle of proprietary specification has found legal support in the case of Whitten Corp. v. Paddock Pool Builders, Inc., a Federal District Court case from Massachusetts (376 F. Supp. 125). Further support came in 1975 when the U.S. Supreme Court rejected further appeal and review.

2) This specification applies only to Micro-Top. Micro-Top offers the unique ability to thinly cover a variety of surfaces such as concrete, wood, and metal, with a full spectrum of cementitious color choices.

### 1.00 General

#### 1.01 Description - Micro-Top includes:

Applications:

- 1) Interior renovation projects requiring resurfacing of damaged concrete.
- 2) New construction surfaces where elaborate design and color choices require costly multiple forming and pouring phases.
  - a. Materials: Micro-Top Liquid and Micro-Top Powder
  - b. Concrete placement and finish.
  - c. Sealer application.

**1.02 References and Standards** - The licensed Bomanite contractor is normally a subcontractor, and the Micro-Top process may be included in Divisions 2 or 3. The contractor for this work shall be the following BOMANITE licensed contractor who has been trained and equipped by BOMANITE CORP:

**Progressive Concrete Works**

2136 W. Melinda Lane, Phoenix, Arizona 85027

Tel: (623) 582-2274 / Fax: (623) 582-1751

Web site: <http://www.ProgressiveConcrete.com>

E-mail: [mike@progressiveconcrete.com](mailto:mike@progressiveconcrete.com)

**1.03 Definitions** - Micro-Top by Progressive Concrete Works, Inc., a system that employs the use of a troweled on cementitious topping to resurface vertical and horizontal surfaces on indoor applications. Micro-Top is approximately 20 mils thick (about the thickness of a credit card) and utilizes a full spectrum of color choices that can incorporate simple or elaborate graphic design. The work is performed on the job site by trained and experienced technicians.

**1.04 Scope** - The work designated in this section shall be specified Micro-Top by Progressive Concrete Works, Inc. The work shall include all labor, material, equipment and transportation required to install the Micro-Top. The contractor for this work shall be licensed, tooled and trained by BOMANITE Corporation to use the materials and processes specified as Micro-Top. The contractor shall be required to provide a foreman or supervisor who has done at least three Micro- Top projects.

#### 1.05 Quality Assurance

a. All work shall be installed by Progressive Concrete Works, Inc. a licensed BOMANITE Contractor who shall provide a foreman or supervisor who has experience with and knowledge of special processes used to install Micro-Top. Evidence that the BOMANITE Contractor is qualified to complete the project as specified herein shall be submitted to, and subject to approval of, the Architect/Designer.

b. Progressive Concrete Works shall provide a sample (2'x2' sample) to be approved by the Architect prior to the start of the construction. Said sample shall be the standard for the balance of the work installed, and shall be protected against damage until final approval from the Architect. The cost for the construction and protection of the referee sample shall be borne by the owner/agent and shall be part of the contractor's bid.

### 2.00 Products and Materials

#### 2.01 Concrete Mix Design

a. (Optional) For new construction, the concrete shall have a minimum compressive strength of 3000 psi in non-freeze areas, 3500 psi in moderate freeze-thaw areas and 4000 psi in severe freeze-thaw areas. Portland cement shall conform to ASTM C 150 Type I, II, or V, depending on soil conditions. Aggregates shall conform to ASTM C 33. Mixing water shall be fresh, clean and potable. In freeze-thaw areas only, an air-entraining admixture complying to ASTM C 260 shall be used to achieve an entrained air content for the particular mix used in accordance with the published recommendations of the Portland Cement Association and the American Concrete Institute. No admixtures containing calcium chloride shall be permitted

#### 2.02 Coloring, Application and Sealing Materials

a. (Optional) Reinforcement for new construction: All slabs shall conform to the guidelines and recommendations of the American Concrete Institute for reinforcement of cast-in-place concrete slabs.

b. (Optional) Curing for new construction: All concrete slabs shall be cured with BOMANITE Cure and Seal or approved equal.

c. A semi-rigid elastomeric crack filler, \_\_\_\_\_ manufactured by \_\_\_\_\_, shall be used to fill "working" cracks and construction joints.

d. Micro-Top Color: The surface shall be colored with the following Micro-Top color(s): \_\_\_\_\_.

e. Sealer: All Micro-Top surfaces shall be sealed in accordance with the manufacturer's recommendations.

### **3.00 Execution**

#### **3.01 Installation Procedures**

a. (Optional) For new construction, concrete shall be installed in accordance with the standards and specifications of the American Concrete Institute (ACI).

b. Interior concrete shall be tested for vapor emissions levels in accordance with ASTM D4263. If vapor emission levels exceed 5 lbs., Bomanite Conshield shall be applied according to manufacturer's recommendations.

c. All exterior concrete shall be treated with Bomanite Conshield (Exterior concrete can not be tested for vapor emission)

d. Concrete shall have a pH level between 7-9 (If concrete does not conform, call Progressive Concrete or Bomanite Corp.)

e. The substrate shall be clean of loose dirt and debris. Any surface irregularities, such as concrete spillage or other built up foreign materials, shall be removed by sanding, grinding or scraping so that approximately 20 mils of Micro-Top can be applied.

f. Surface shall be dry and free of grease, oil stains or any unstable foreign material.

g. When topping a concrete substrate, a minimum surface temperature should be 45°F (7.2°C).

h. Repair and fill all "working" cracks and construction joints with a semi-rigid elastomeric material in accordance with manufacturer's recommendations.

i. A single squeegee coat of Micro-Top shall be applied in accordance with the manufacturer's recommendations.

j. After the squeegee coat is dry to the touch, the top coat shall be applied in accordance with the manufacturer's recommendations.

k. After the initial curing (10-12 hours), a protective sealer shall be applied to the surface.

l. On exterior horizontal walking surfaces, a non-skid additive shall be applied to the acrylic sealer.

#### **3.02 Protection and Maintenance**

Newly completed surfaces should be protected from water until sealed. Water left on the surface before sealing could result in a white film. This will not affect the adhesion or durability and can be cleaned prior to sealing. Acids or solvent materials should not be used over the finished Micro-Top. Do not apply tape directly to the Micro-Top.

Regular cleaning and maintenance coats of sealer shall be applied periodically to assure the base acrylic is protected and the desired level of gloss is maintained. This will vary depending on a number of factors including volume and intensity of traffic, UV exposure, geographical location and weather conditions. For instance, interior applications will require a different routine maintenance program than exterior products. Residential applications typically require less cleaning and maintenance than commercial and municipal projects. In large commercial applications, a qualified floor maintenance contractor is recommended for routine cleaning. Contact your local BOMANITE contractor for the proper maintenance program in your area.

#### **LIMITATIONS**

Micro-Top will bond tenaciously to foreign materials that are bonded to the substrate, such as cut back adhesives, thinset grouts or high performance coatings, but the ultimate bond strength of Micro-Top is dependent on the bond strength of the foreign material. Any questionable low strength coatings such as release agents, bond breakers or gypsum based material should be removed completely. When using Micro-Top over high performance glossy coatings the surface should be roughed up with a sanding disk. Though Micro-Top will bridge hairline cracks well and leave them less noticeable than they were originally, working cracks or control joints will reappear and should be filled with a semi-rigid elastomeric material prior to applying Micro-Top.

#### **Certification**

The Bomanite International Society of licensed contractors is a worldwide network of specially trained and equipped professionals. Through constant exchange of new ideas, re-education and development programs, members of the Bomanite International Society continue to increase already high standards of quality and service. The activities of the Bomanite International Society are coordinated by Bomanite Corporation. The Corporation also provides services and technical assistance to its member licensees, and to architects, designers and engineers specifying Bomanite products.

BOMANITE® is a registered trademark and servicemark with the U.S. Patent Office and other countries. Micro-Top™ is a trademark of Bomanite Corporation (with formal registration pending) and cannot be copied for any purpose.

For more information contact:

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