

SECTION 03 35 00

CONCRETE FINISHING

Multicoat Micro-Topping

This guide specification has been prepared by Multicoat Product Systems, in printed and electronic media, as an aid to specifiers in preparing written construction documents for polymer modified cementitious coatings. MULTICOAT MICRO-TOPPING is a high quality, polymer modified, cement based, smooth finish coating, that when mixed with water, produces a tough, durable finish. The finish is then able to accept dye, stains, and sealers.

Edit entire master to suit project requirements. Modify or add items as necessary. Delete items which are not applicable. Words and sentences within brackets [_____] reflect a choice to be made regarding inclusion or exclusion of a particular item or statement. This section may include performance, proprietary and descriptive type specifications. Edit to avoid conflicting requirements. Editor notes to guide the specifier are included between lines of asterisks to assist in choices to be made. Remove these notes before final printing of specification.

This guide specification is written around the Construction Specifications Institute (CSI) Section Format standards.

For specification assistance on specific product applications, please contact our offices or any of our local product representatives throughout the country.

Multicoat Product Systems reserves the right to modify these guide specifications at any time. Updates for this guide specification will be posted on the manufacturer's web site and/or in printed matter as they occur. Manufacturer makes no expressed or implied warranties regarding content, errors, or omissions in the information presented.

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and other Contract Documents, listed in the agreement between the Owner and Contractor, apply to this Section.

1.2 RELATED SECTIONS

- A. 09 97 00 – Special Coatings

1.3 SUMMARY

- A. Section includes polymer-modified cement waterproofing for internal, external application to [concrete] [concrete unit masonry] [and] [brick substrates].

1.4 SUBMITTALS

- A. Product Data:
 - 1. Submit manufacturer's descriptive literature and product specifications for each product.
 - 2. Submit laboratory tests or data that validate product compliance with the performance criteria specified.

1.5 QUALITY ASSURANCE

A. Installer Qualifications:

1. Acceptable to manufacturer with documented experience on at least 2 projects of similar nature in past 2 years and/or training provided by the product manufacturer.

B. Manufacturer Qualifications:

1. Company specializing in manufacturing Products specified in this Section with minimum [10] years documented experience.

1.6 DELIVERY AND STORAGE

- ### A.
- Deliver, store off the ground and covered, handle and protect products from moisture in accordance with manufacturer's instructions.

- ### B.
- Deliver materials in manufacturer's unopened containers, fully identified with brand, type, grade, class and all other qualifying information. Provide Material Safety Data Sheets for each product.

- ### C.
- Take necessary precautions to keep products clean, dry and free of damage.

1.7 WARRANTY

- ### A.
- Materials are guaranteed with respect to uniformity and quality within manufacturer's specifications.

1.8 PROJECT CONDITIONS

- ### A.
- Do not apply if substrate temperature is below 40°F or above 100°F, or if ambient temperature below 40°F above 100°F.

- ### B.
- Do not apply if precipitation is expected within a twenty four (24) hour period.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- ### A.
- Multicoat Corporation 23331 Antonio Parkway, Rancho Santa Margarita, CA 92688, 877-685-8426, Email: info@multicoat.com, www.multicoat.com

2.2 MATERIALS

- ### A.
- Polymer modified, cement based, smooth finish coating, that when mixed with water, produces a tough, durable finish.

1. Product: MULTICOAT MICRO-TOPPING
2. Weatherometer: 2000 hrs. – Passed (ASTM G23)
3. Compressive Strength: 2595 psi @ 45 Days air cured - (ASTM C109)
4. Flexural Strength: Modulus of Rupture - 770psi (ASTM-D790)
5. Tensile Strength: 457 psi (ASTM-C190)

6. Bond Strength (Flatwise Tension): 225 psi (ASTM-C297)
7. Abrasion Test: 39 mil loss 1000cyc-1000gms (ASTM-1242A)
8. Salt Spray: 300 hrs. – Passed (ASTM-B117)
9. Water Vapor Transmission: 8.5 Perms (ASTM-E96A)
10. 50-Cycle Freeze thaw: Passed (ASTM-C67)
11. Impact Resistance: MIL-D-3134F Passed
12. Flame Spread: Class A (ASTM-E84)

2.3 ACCESSORY MATERIALS

- A. Color Stain: MULTICOAT MULTI-STAIN is an acrylic based concrete stain furnished in factory blended containers. It is used as a decorative color stain for most cementitious substrates. Interior applications must be sealed with either Micro Seal System or Acrathane Clear Sealer; Exterior must be sealed with Acrathane Clear Seal.
- B. Color Sealer: ACRATHANE COLORSEAL consists of a series of high quality waterbased modified resins that provide a high quality, durable seal on masonry, cementitious, and other building substrates. Colors are factory blended to insure uniformity.
- C. Clear Sealer: MULTICOAT ACRATHANE CLEARSEAL is also a water base material. Not typically used in COLORSEAL applications, however it can be used to achieve a glossy, wet look. Is also used in conjunction with MULTI-STAIN to lock in the color. CLEARSEAL can also be used on most masonry and stone substrates.
- D. Concrete Repair: MULTICOAT SPEED MIX 2000 is a fast setting, resin modified, hydraulic cement. It is used by itself for most types of concrete repair such as leveling, filling cavities and cracks. Can be used interior or exterior, vertical, horizontal or overhead.
- E. Interior Sealer Only: MULTICOAT MICROSEAL SYSTEM is a clear, two step finishing system intended for interior applications. It is comprised to two products: Micro Epoxy Base Coat is a new generation, low VOC epoxy coating which is roller applied. Micro Clear Finish is an aliphatic urethane also roller applied. Both of these two products are two-component materials mixed together at the job site.
- F. Crack Repair: MULTICOAT SPEED BOND CRACK REPAIR SYSTEM is unique two component water based polyurethane material. SPEED BOND is used to repair cracks, holes, and depressions prior to the application of various Multicoat Systems. SPEED BOND is a two-part material packaged in a standard caulking tube which does not require any special tools.
- G. Water: Potable.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and adjoining construction, and conditions under which Work is to be installed. Do not proceed with Work until unsatisfactory conditions are corrected.
- B. Verify the following substrate conditions before application of waterproof lining:
 1. That substrate condition is satisfactory and in accordance with manufacturer's instructions.

2. That concrete surfaces are free of voids, spalled areas, loose aggregate and sharp protrusions, and with no coarse aggregate visible.

3.2 PREPARATION

- A. Substrate must be structurally sound and free from grease, oil, dirt, dust, sealers, water repellents and other foreign materials which may interfere with proper bonding.
- B. Cleaning may be accomplished by shot blasting, sand blasting, mechanical sanding, acid etching, or minimum 3500 psi power washing.
- C. If the surface is cleaned with muriatic acid, it must be thoroughly neutralized by flushing with a solution of baking soda and water.
- D. Smooth steel troweled concrete must be roughened to insure a good bond.
- E. If patching of the concrete surface is necessary, it may be re-leveled with Multicoat Speed Mix.

3.3 APPLICATION

- A. General: Comply with waterproofing manufacturer's written instructions for application and curing.
 1. Pour 5 to 7 quarts of water into a clean pail. Do not deviate from this amount.
 2. Slowly add MICRO-TOPPING to the pail. To avoid lumps, add the powder slowly while mixing. Faster mixing can be achieved by using a drill and paddle mixer.
 3. Consistency should be that of pancake batter. Let mixture stand for 3-5 minutes (depending on weather) and then remix.
 4. If finish required calls for integral color mix, add jars of MULTICOAT LIQUID COLORANT at this time. To insure uniformity, add the same amount of colorant to each bag mixed. Color variations may occur within each mixture.
 5. Typically applied using a steel trowel or "Magic trowel" for a smooth finish. Can also be applied using a hopper gun or squeegee.
 6. The thickness, application method, number of coats applied, surface absorption, weather conditions, etc., will affect square foot coverage per bag. Typical coverage per bag will range from 100 to 300 sq. ft. per bag.
 7. Apply stain or sealer. For interior applications using integral mixed color apply Acrathane Clear seal or Micro Seal System. For exterior integral color applications use Acrathane Clear Seal. For interior non integral color applications interior use Multi-Stain and either Acrathane Clear Seal or Micro Seal System. For exterior non integral color applications use Multi-Stain and Acrathane Clear Seal,
- B. If product is applied during hot and windy weather, the product will set too fast and become unworkable.

- C. Installations requiring acid and/or industrial chemical resistance require MICRO-TOPPING to be sealed with Acrathane sealer.
- D. Using too much water will prevent MICRO-TOPPING from curing properly.
- E. Newly poured concrete slabs must cure for a minimum of 14 days.
- F. Applying the MICRO-TOPPING too thick will increase the susceptibility of mud cracking.
- G. Do not bridge expansion or control joints with the MICRO-TOPPING. All expansion or control joints must be cut and cleaned out and filled with approved caulking material.

END OF SECTION 033500