



Tumbled Marble

Decorative Pedestrian Traffic Coating

TOTAL FINISHED THICKNESS

3/16" to 3/8" (4.7mm to 9.4mm)

MATERIAL STANDARDS

- ASTM C150
- ASTM C109
- ASTM C794
- ASTM D2047
- ASTM D2240
- ASTM D4060
- ASTM D638
- ASTM G23
- MIL-D-3134 F

SPECIFICATION CLASSIFICATIONS

- 03 01 30.61 Resurfacing Cast-in-Place Concrete
- 03 01 40.61 Resurfacing Precast Concrete
- 03 01 50.61 Resurfacing Cast Decks & Underlayment
- 03 35 00 Concrete Finishing
- 03 53 00 Concrete Topping
- 07 18 13 Pedestrian Traffic Coatings
- 07 19 00 Water Repellents
- 09 01 90 Maintenance Coatings
- 09 05 13 Common Finishes
- 09 94 13 Decorative Finishing, Textured
- 09 94 16 Faux Finishing
- 09 97 26 Cementitious Coatings

MATERIALS NEEDED

- Deck Waterproofing Membrane
- Mer-Ko Fiber Tape
- Mer-Ko Prep Seal Primer
- Tumbled Marble Compound
- Mer-Ko Admix 100
- LaHabra Color Pack (optional)
- Mer-Ko Liquid Release Agent (optional)
- Parex USA's Select Finish Antiquing Gel (optional)
- Mer-Ko Clear Seal WBV (optional)

SUBSTRATES

Tumbled Marble can be installed over properly prepared concrete substrates.

ADVANTAGES

- Seamless, monolithic surface
- Excellent adhesion to any sound, solid, dry concrete substrates
- Can be installed over existing substrates
- Suitable for horizontal & vertical applications
- Resists degradation from UV, ozone and weathering
- Stain resistant
- Outstanding long-term durability and performance
- Versatile design capabilities & unlimited color options

PRODUCT DESCRIPTION

Tumbled Marble is a polymer-modified, portland cement-based concrete overlay designed to provide a decorative and durable wearing surface for various applications. Tumbled Marble is ideal for outdoor entertainment areas, pool decks, patios, walkways, breezeways and any other light to heavy foot-traffic areas. Whether the surface is a high-profile outdoor recreational area, backyard patio or pool deck, Tumbled Marble provides a durable, comfortable and aesthetic surface to complement any decor.

This versatile product, comprised of cement, quartz aggregates, and acrylic polymer resins provides a cost-effective, attractive alternative to real marble, stone and other architectural facings. Its durability and finished appearance offers long-term aesthetic appeal with enhanced design flexibility when integral colorants and accents are incorporated.

Tumbled Marble is engineered for easy application to sound concrete substrates, making it an ideal solution for resurfacing, renovation and refurbishment projects. It installs at 3/16" to 3/8" (4.7mm to 9.4mm) finished thickness and can offer additional skid resistance and enhanced aesthetics using a variety of finishing techniques and texturing methods.

USES/APPLICATIONS

- Patios & Pool Decks
- Walkways & Breezeways
- Exterior Flat/Walking Decks
- Observation Decks
- Promenade Decks & Verandas
- Commercial & Residential Pedestrian Traffic Areas

AESTHETIC FINISHES/TEXTURES

Traditional trowel finishes, in addition to advanced texturing options such as knock-down, stippling, scoring, stenciling, scattered color, sponging, ragging, etc. can be achieved. This wide array of finish options provides unlimited aesthetic design flexibility and superior substrate protection.

COLORS

Tumbled Marble is integrally colored with a variety of LaHabra Color Packs. There are 12 standard colors available. Using a wide variety of design elements and colorant accents commonly used in the decorative coatings industry, coloring and finishing options are virtually limitless. Refer to the appropriate Color Selection Guides for additional details on color options for Antiquing Gel products. Custom colors are available upon request.

Colors may vary from color chart. Printed color charts are as closely representative to actual colors as modern printing technology allows. Final color selection should be made from an actual sample. Additional fees, lead times and minimum order quantities apply for custom colors.

INSTALLATION CONDITIONS

Tumbled Marble should not be installed if the surface or ambient temperature is below 40°F (4.4°C) or above 100°F (37.8°C). Do not install during inclement weather, when precipitation is occurring or expected within 24 hours.

SUBSTRATE PREPARATION

Tumbled Marble can be installed over properly prepared concrete substrates. Concrete surfaces require a 28 day minimum cure and must be structurally sound, clean, dry and free of dirt, dust, oil, grease, paint or other contaminants at the time of material application. A minimum deck slope of 2% (1/4 unit vertical in 12 units horizontal) is required for proper drainage. Concrete control joints should coincide with stress relief concentration points, with a maximum spacing of 20 ft (6.1 m).

COVERAGES

Coverage rates are approximate only and can vary greatly due to surface conditions, humidity, temperature and installation techniques.

Primer	300-400 ft ² (27.9-37.2 m ²)/gallon
Bodycoat	35-40 ft ² (3.3-3.7 m ²)/50 lb. bag
	Yield: 3/16"-1/4" (4.7-6.4mm) DFT
LaHabra Color Pack	Dependent on usage to achieve desired color
Recommended ratio is 1:1 (1 Color Pack: 50 lb compound)	

Accessory Products

Deck Waterproofing Membrane	Dependent on usage
Mer-Thane Fiber Tape	Dependent on usage
Antiquing Gel	Dependent on usage & application technique

Sealer

Mer-Ko Clear Seal WBV.....	750-1,000 ft ² (69.7-92.9 m ²)/5 gallon pail
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Concrete surfaces must be properly prepared. Smooth, non-porous substrates must be abraded. Clean the application area using a pressure washer, grinder, shot blaster or scarifier as required to produce a clean, sound substrate.

The surface must be uniform, free of depressions and ridges. All holes must be cleaned and filled with an appropriate Mer-Ko underlayment. All high spots must be removed by chipping or grinding. All cracks and control joints should be treated using Mer-Ko Deck Waterproofing Membrane with Fiber Tape embedded.

APPLICATION INSTRUCTIONS

1. Standard Crack & Joint Treatment

Treat horizontal concrete surface cracks and joints by applying a thick coat of Deck Waterproofing Membrane at a minimum 15 mil (0.38mm) DFT over the immediate surface crack or joint using a trowel, brush or roller, ensuring complete coverage. Immediately after the waterproofing membrane has been applied and while the material is still wet, embed 4 inch Mer-Thane Fiber Tape into the wet waterproofing membrane for a distance of 2 inches on both sides, saturating it completely.

Firmly trowel-push the fabric into the wet membrane material to ensure that it is completely embedded. No dry or fabric material spots should be visible and the fabric should lay completely flat and without wrinkles. Apply additional waterproofing membrane as necessary over areas to ensure embedment.

Allow the entire area to dry a minimum of 24 hours at 70°F (21°C) 50% RH, until dry enough to walk on without leaving impressions, prior to commencing with installation of successive decorative coating applications. The Deck Membrane must be covered with a protective coat within 72 hours.

2. Bonding Primer

Apply Mer-Ko Prep Seal Primer to the properly prepared substrate. Brush, roller or spray apply in a thin, continuous layer. Do not over apply or create puddling. Allow Mer-Ko Prep Seal Primer to dry tack-free before proceeding. Tumbled Marble compound must be applied within 72 hours. If application begins after 72 hours for initial priming, the surface must be re-primed.

3. Bodycoat – Mixing

Pre-Blending Solution

For integrally colored applications, pre-blend the appropriate LaHabra Color Pack with 2 quarts of Mer-Ko Admix 100 and 0.5 gallon of water (for each bag of compound to be mixed). In a 5-gallon pail, slowly add a color pack while mixing with a caged hand drill or mechanical mixer. Mix for 1 minute.

Color Packs are designed for use at a 1:1 ratio with the Tumbled Marble Filler 50 lb. bag.

PACKAGING

Primer

Mer-Ko Prep Seal Primer	1 gal (3.8 L) bottle
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Bodycoat

Tumbled Marble Compound	50 lb. bag (22.7 kg) bag
Mer-Ko Admix 100.....	1 qt. (0.9 L) jug & 5 gal (18.9 L) pail

Accessory Products

Deck Waterproofing Membrane	5 gal (18.9 L) pail
Mer-Thane Fiber Tape.....	4 inch X 150 LFT/45.7m rolls, 18 rolls per case
LaHabra Color Pack	14 oz. bag.....0.41 kg bag*
Parex USA Antiquing Gel... 1 qt. (0.9 L) jug, 1 gal (3.8 L) bottle, 5 gal (18.9 L) pail	

Sealer

Mer-Ko Clear Seal WBV	5 gallon pail..... 18.9 liter pail
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*The ratio of Color Pack to Compound is 1:1 for color levels that approximate those on the Color Selection Guide. The amount of colorant used can be adjusted for lighter or darker color level, a maximum of two standard 14 oz. Color packs can be used with each 50 lb. bag of Compound.

Mixing/Incorporating Solution into the Bodycoat

Using a clean 5-gallon pail, slowly add the Tumbled Marble Compound to the pre-blended solution and mix for a minimum of 15 minutes. While mixing, add the additional water (up to 0.25 gallon additional, for a total of 1.25 gallons per 50lb. bag). Be sure to incorporate material on the sides and bottom of the mixing container to avoid lumps. Let the material stand for five minutes then remix for use, while mixing, adjust the mixture if necessary by adding a small amount of additional water until a uniform, workable consistency is achieved.

4. Bodycoat – Application

Apply mixed Tumbled Marble Compound in one or more applications using a stainless steel trowel, by spraying or combination of both, over the entire horizontal surface area at a minimum 3/16" to 3/8" (4.7mm to 9.4mm) thickness.

Texturing /Stamping

Let the material set approximately 30 minutes depending upon temperature and relative humidity. Then, either spray or trowel-apply additional material and knock it down with a trowel or scrape trowel the material to create aesthetic texture. If stamping mats/skins are being used, be sure to spray a layer of Mer-Ko Liquid Release Agent in a complementary accent color to prevent stamping mats/skins from sticking and removing material

When using stamping mats or texturing skins for aesthetic design, spray Mer-Ko Liquid Release Agent in a coordinated color across the entire bodycoat application surface, being sure to thoroughly cover the Tumbled Marble material. Then, proceed with stamping impressions using conventional concrete stamping and texturing tools and techniques as selected for the project. Texturing/Stamping must be accomplished while the bodycoat material is still wet.

Simulated Grout Joints

If simulated grout joints are the desired look. Allow the material to take set 2-4 hours. Then using a grout cutting tool, cut controlled depth scored lines to create a stone, tile, block or other unique decorative pattern. Make sure the grout cutting is completed while the material still contains moisture and before completely drying.

After drying, if desired a color-coordinated version of the material can be placed back in the grout joints with the use of a masons grout bag to simulate mortar filled joints. Or optionally, on a dry surface use a grinding wheel to cut controlled depth lines, creating a block or other unique finish decorative patterns as desired.

Technical Application Guide

Tumbled Marble

Optional Polishing

If desired the Tumbled Marble surface can be ground in a controlled method to expose the aggregate can be accomplished the same day (after the material has set and before drying) with a 1,500-3,000 rpm polisher equipped with a stone grinding wheel.

The Tumbled Marble surface can be ground and or polished next day with a 1,500-3,000 rpm stone polisher equipped with a stone grinding wheel followed by flexible stone polishing pads. Controlled grinding and or polishing will help create a simulated marbled appearance. The use of water as a lubricant will be necessary with grinding or polishing the material after it has dried.

Allow the material to cure for a minimum 8 hours, until completely dry. Then, using a stone grinding wheel and polishing pads with water on the surface, grind and polish the material until you have exposed some of the aggregate and achieved the desired results. Rinse the surface thoroughly and allow the area to dry completely (normally overnight depending upon environmental and job site conditions) before proceeding with accenting/coloring or topcoat/sealer applications.

5. ACCENTING/COLORING

Apply accent colorings using Parex USA's Select Finish Antiquing Gel or other Mer-Ko artistic materials commonly used in decorative coating applications as designed for the project. Many coloring techniques and effects can be used to achieve the desired results. Refer to the applicable Antiquing Gel Product Data Sheet for application instructions.

6. SEALER APPLICATION

Apply Mer-Ko Clear Seal WBV to achieve the desired surface protection suitable for the usage environment.

Topcoat/Sealer Application

When using Parex USA's Select Finish Antiquing Gel as an accent colorant, Mer-Ko Clear Seal WBV should be used to seal the surface. Do not use Mer-Thane clear sealers over Antiquing Gel. DO NOT use acid stains to achieve aesthetic effects.

Sweep the entire deck surface clean of any residual dust or debris. Roller or spray apply the selected Mer-Ko clear sealer topcoat to protect the finish and provide a durable, UV resistance trafficable surface. Allow to dry for a minimum of 1 hour. Then, proceed with a second sealer application in the same manner as the first, ensuring full coverage. Allow to cure a minimum of 1 hour. Allow a 6 hour cure before introducing light foot traffic; 24 hours before returning to full service.

CARE & MAINTENANCE

Tumbled Marble is designed to provide easy cleanability and low maintenance. Establish a normal maintenance schedule for washing and cleaning the decorative surface using a wet or dry dust mop followed by a mild soap and water solution. TSP (Tri Sodium Phosphate) and all purpose cleaners are recommended. Use a stiff broom or scrub brush (polypropylene, nylon, or horsehair) to remove stubborn contaminants on the decking surface. Rinse the deck thoroughly after scrubbing. No solvents should be used to remove contaminants as this may cause damage to the deck surface. All corrosive substances, chemicals and organic materials should be cleaned and rinsed away immediately to prevent damage and/or staining. Test all cleaners in an inconspicuous area to ensure compatibility.

The clear topcoats are designed to resist direct exposure to environmental elements and withstand normal wear. When traffic patterns become visible or heavy impacts mar the surface, the clear topcoat should be re-applied to restore aesthetic appeal. Surfaces should be re-sealed every 3 years for best results, or per the schedule listed on the warranty issued. Refer to Decorative Systems Care & Maintenance Instructions for more detailed information on proper care and re-sealing.

PHYSICAL CHARACTERISTICS

Abrasion Resistance	0.20 gram loss (ASTM D4060, H-22 Wheel, 1,000 gram load for 1,000 cycles)
Adhesion	> 250 psi (ASTM C794)
Compressive Strength	>3,000 psi (ASTM C109) at 28 Days
Elongation	0.04 ft./ft. (ASTM D638) No visual signs of failure
Indentation Characteristics	Complies (MIL-D-3134 F)
Resistance to Aging	2,000 hours, No visual signs of failure (ASTM D756, AC 39)
Surface Hardness	84 (ASTM D2240, Shore D)
Tensile Strength	> 625 psi (ASTM D638, ASTM C190)
Thickness	3/16 to 3/8 inch (4.7 to 9.4mm)
Weight	< 2 lbs./ft ²

CAUTIONS & LIMITATIONS

- Do not install during inclement weather, when precipitation is occurring or expected within 24 hours.
- Mer-Ko decorative coatings are designed for professional installation.
- Warranties require installation by currently listed applicators.
- Concrete substrates must be properly prepared. Non-porous substrates must be scarified.
- Sufficient pitch of the concrete slab/deck surface is required to ensure run-off and prevent pooling.
- Concrete substrates must have a minimum compressive strength of 3,000 psi tested by "point loading" technique.
- Cementitious materials should be used within 30 minutes, do not re-temper.
- The Deck Waterproofing Membrane should not be exposed for more than 72 hours prior to being covered with the protective coat.
- Not designed for heavy steel wheeled traffic.
- Protect all finished surfaces that are not intended to receive the deck coating system materials.
- When using Parex USA's Select Finish Antiquing Gel as an accent colorant, Mer-Ko Clear Seal WBV should be used as the final topcoat. Do not use Mer-Thane clear topcoats over Antiquing Gel.
- Tumbled Marble provides moderate chemical resistance. Avoid exposure to harsh chemicals or acids.
- Will not bridge seismic cracks or wide construction joints.
- Reflective cracking can occur with substrate movement.
- Mer-Ko Clear Sealer WBV will enhance, darkening the color level of untreated integrally colored materials.

STORAGE & HANDLING

Store all Tumbled Marble materials off the ground, in a dry environment at temperatures between 40°F and 100°F (4°C and 38°C). Keep Tumbled Marble bags off the ground and prevent exposure to moisture during transport and storage. Promptly clean tools and equipment with water and mild detergent. Always wear proper safety equipment, including particle mask, eye protection, and gloves when mixing and/or applying these products.

SHELF LIFE

The shelf life for most products is six (6) to twelve (12) months from the date of manufacture in the original, unopened container when the material is properly stored.

WARRANTY

Five (5) year warranties are available depending upon product selection and project design. Contact Mer-Ko's Customer Service Department for specific warranty information.

Any recommendation or suggestion relating to the use of MER-KO products made via current technical literature, marketing materials, technical application guides, specifications, and the like, or in response to specific inquiry or otherwise, is based on data believed to be reliable. However, the products and information are intended for use by Buyers having requisite skill and know-how in the industry. Therefore, it is the responsibility of the Buyer to satisfy the necessary requirements of suitability of the products for its own particular use, and it shall be deemed that Buyer has done so, at its sole discretion and risk. Variation in environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results. Mer-Ko believes the information contained herein is true and accurate as of the date of publication. Information contained here is for evaluation only. Mer-Ko reserves the right to modify and/or change products or literature at any time and without prior notice.

Corporate Office

Parex USA, Inc.
4125 E. La Palma Ave., Suite 250
Anaheim, CA 92807
(866) 516-0061
Tech Support: (800) 226-2424

