



An industrial care company

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MILLCRETE STAMPABLE OVERLAY

Polymer Modified Cementitious Overlayment

PRODUCT DESCRIPTION: Millcrete Stampable Overlay is a pre-blended polymer modified, non-shrink cementitious thin applied overlay for resurfacing concrete flatwork. Millcrete Stampable Overlay is available in either white or gray Base colors that can accept integral pigments or Millcrete Dust on Hardener for color modification during application, or can be modified after placement and cure with either acid or acrylic stains for desired effects. Millcrete Stampable Overlay contains finely dispersed polypropylene fibers for increased tensile and flexural strengths and improved durability, related spalling and cracking surface degradation. Typical applications include interior floors and building entrances, patios, pool decks, sidewalks, driveways and related flatwork.

BENEFITS: Adds pattern, texture and color option possibilities to old or worn concrete slabs...provides all the aesthetic benefits of conventional stamped concrete but in less time and labor to install...allows the user the ability to replicate the look of natural stone, brick, tile or slate with the various stamping patterns available in the marketplace.

COMPOSITION: Portland based cement, selected aggregates, VAc-e copolymers and proprietary chemical additives. This product contains no calcium chloride or added chlorides that contribute to reinforcement steel corrosion or efflorescence concerns.

Technical Data:

WORKING & PERFORMANCE PROPERTIES @ 70°F (21°C) (APPROXIMATE):	
Initial Set per :	1.0 hours
Final Set per :	3.0 hours
Coverage per 25 kg bag	Covers 25 sq. ft. at 1/4 inch

*All tests run at 16% water to powder ratio = 4 ltr. water / 25 kgs bag * Grey cement

COMPRESSIVE STRENGTH PER ASTM C-109	
1 day	1210 psi (8.3 Mpa)
3 days	2550 psi (17.6 Mpa)
7 days	3520 psi (24.2 Mpa)
28 days	4400 psi (30.3 Mpa)

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FLEXURAL STRENGTH PER ASTM C-78	
7 days	870 psi (6.0 Mpa)
28 days	1520 psi (10.5 Mpa)

SURFACE PREPARATION: Proper surface preparation of the concrete substrate is critical for successful application of the Millcrete® Stampable Overlayment. The substrate must be in a structurally sound condition, free of gaping cracks (wider than hairline), and free of oil, grease, dirt and all other surface contaminants that would interfere with adhesion of the Millcrete® Stampable Overlayment. The use of Glo-Flo Glitter+Quat Detergent or Glo-Flo Enviro degreaser is recommended for removing any surface contaminants. The ideal substrate to be covered should have some absorptive porosity or texture (surface profile), and should not repel water when applied. Use Glo-Flo Etch compound if the surface does not have adequate absorptive porosity. A cleaned, profiled surface can also be obtained by use of pressure washing, sand blasting, or blast tracking (steel shot). All cracks, spalls, or holes need to be patched or repaired prior to Overlay application.

JOINTS: All expansion joints within the existing concrete need to be kept open and should not be covered by the overlayment. These joints can be marked during application with a trowel and are usually incorporated into the desired end pattern or texture of choice. Placement of Millcrete® Stampable Overlay over expansion joints or other moving cracks and joints that are not repaired beforehand or allowed to expand can telescope or transfer through to the overlay surface causing additional cracking or possible delamination of the material. Non-moving cracks or spalls can be repaired to keep the epoxy inside the with Inducet Inject (injection epoxy), taking care of crack and not overfilled onto the concrete surface. Once the Stampable Overlay is installed, a control joint can be sawed through the substrate at a minimum of 1/3 the depth to allow for continued movement. This joint should be sawed as close as possible to the original crack.

CURE TIME: Allow 28 day minimum cure time for application to new concrete slabs. When repairing old or cracked concrete, all repair mortars or epoxies have to be allowed proper cure times as well. Allow at least 12 hours for injection epoxy repairs and 3-4 days for cement patching mortars.

MIXING: Accurately measure out the correct water amount and liquid activator for each bag of Millcrete® Stampable Overlay and add to a clean mixing bucket. A 25 kg bag will require (4.0-4.5 L) of water to achieve the proper “pancake batter- semi-flowable” consistency, depending upon ambient conditions. Warmer temperatures or lower humidity levels may require use of the higher water level amount. Note that variations or inconsistent measuring in the amount of water added will result in differences in end color and texture. Add any selected pigments or colorants (liquid or powder) per the dosage rate specified by the color manufacturer, taking care to measure identical

amounts with each batch to ensure uniformity. Using a mechanical mixer, mix material at low speed until it is fully blended, and a uniform, lump free consistency is obtained.

APPLICATION: Pre dampen the substrate prior to application Millcrete® Stampable Overlay so that it is uniformly damp, but has no free-standing water or puddles. Apply Indubond 4031 (bonding Epoxy) to the surface at a typical rate of 150- 200 square feet per gallon approximately 1- 2 hours before application. The Indubond 4031 will dry to a slightly tacky, clear consistency within 1 hour at 70°F average conditions. Apply the mixed Millcrete® Stampable Overlay from the walls outward at an approximate ¼ inch thickness by use of an adjustable gauge rake. Once the material is gauge raked to a uniform thickness, the surface can be troweled to a smooth finish typically using a rounded corner fressno. Do not overtrowel the material. Allow the Millcrete® Stampable Overlay to set so that the surface is pliable (firm to touch but not sticking to fingers or tools), but do not allow it to set before the surface is stamped and textured. Drying time is typically between 1 hour (+/-) 30 minutes depending on thickness and weather conditions.

Liquid Release option: Using a hand held sprayer, spray Millcrete Liquid Release Agent onto the stamping tools as well coating very lightly the surface area to be stamped. Too much release agent applied to the overlay surface may result in air bubbles or mottling inconsistencies in color after stamping. Do not spray Millcrete Liquid Release Agent too far ahead of the stamping process as it can evaporate before it has been stamped. Some end users mix integral color into the release liquid to obtain a lightly antiqued finish upon stamping.

Powder Release option: Millcrete® Release Powder can also be used as an option to the liquid for increased antique color enhancement effect. Broadcast just enough release powder so that the surface appears dry and completely covered, avoiding any piles, lumps or streaks. Lay the stamps onto the surface tightly together, interlocking the edges together, and either walk or tamp down to transfer the impression. Then remove the stamps and move to an un-imprinted area and repeat the process until the entire surface has the impression of the stamps. Always check the impression of the Stamp before you remove it to ensure the pattern has been transferred completely into the surface. Allow the applied surface to “air cure” for a recommended minimum of 24 hours before cleaning and foot traffic, and 48 hours before applying any stains or sealer topcoats to reduce the chance of any blushing or whitening effects

CAUTIONS: Mix Millcrete® Stampable Overlay for approximately 5 minutes. Do not mix more material than can be placed in 20 minutes. The temperature of the mixed material should ideally be between 45° F to 70° F, do not apply below 40°F or above 90°F. Use only potable water for mixing. Clean mixing equipment between batches. When mixing Millcrete® Stampable Overlay, the water-to-powder ratio is very critical; do not vary the specified water amount or over water. Do not re-temper. Use of any extension aggregates will alter physical properties as listed. Protect from excessive sun, low humidity, rain and wind exposure, as well as temperature extremes that could prevent inadequate curing. High humidity and lower temperatures will slow rate of strength gain. Do not apply if rain is expected within 24 hours of application. Do not apply to frozen, frost filled or hot surfaces.

WARNINGS: Contains cement and silica, avoid inhalation of dust. Wear gloves, safety goggles, and OSHA approved dust respirator during mixing and placement. Refer to product M.S.D.S. (Material Safety Data Sheet) for additional safety information. Do not take internally. Avoid prolonged contact with skin.

FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN.

NPCS HMIS SAFETY RATINGS: HEALTH = 2, FLAMMABILITY = 0, REACTIVITY = 0, PROTECTION= E

PACKAGING: 25 kgs bag plus 200ml activator (Grey Cement base)
25 kgs bag plus 250ml activator (white cement base)

STORAGE: 40°F to 90°F

SHELF LIFE: 1 year properly stored

LIMITED WARRANTY: This product is warranted to be of merchantable quality when used according to the instruction herein. It is not warranted to be suitable for any purpose or use other than the general purpose for which it is intended. Liability under this warranty is limited to the replacement of the product as purchased, if found to be defective upon inspection by the manufacturer. This limited warranty is issued and accepted in lieu of all other expressed warranties and explicitly excludes liability for consequential damages. Buyer assumes all risk and liability resulting from the use of this product.