

Technical Data Sheet

Sections

03 03 53 00
Micro Topping

Strong Shield™ 247

STRONG SHIELD™ 247 IS A REVOLUTIONARY CEMENTITIOUS MICRO-OVERLAY ENGINEERED TO REVITALIZE AND PROTECT CONCRETE, STONE, MINERAL AND ASPHALT SUBSTRATES. IT PERMANENTLY BONDS CREATING AN EXTREMELY RESILIENT BARRIER THAT PROTECTS AND EXTENDS THE SERVICE LIFE OF THE UNDERLYING SURFACE.

Description

A new revolutionary cementitious micro-overlay engineered to revitalize and protect concrete, stone, mineral and asphalt substrates. It permanently bonds creating an extremely resilient barrier that protects and extends the service life of the underlying surface. Applying Strong Shield 247 reduces the need to use petroleum-based preventative maintenance products. It is environmentally-friendly, budget-friendly, and can be obtained in a variety of colors.

Compressive Strength

ASTM C-109 -7500 psi at full cure

Coverage

25lbs of dry Strong Shield 247:

70-80 sq ft @ 1/16"

40-50 sq ft @ 1/8"

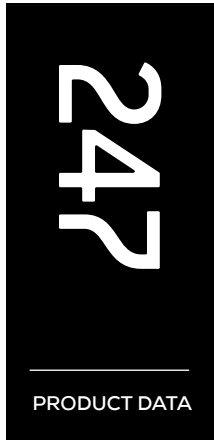
50lbs of Strong Shield 247:

140-160 sq ft @ 1/16"

80-100 sq ft @ 1/8"

Available Colors: Bright yellow, Yellow, Green, Red, Bright red, Orange, Carbon black, Gray, White, Black, Dark gray





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TECHNOLOGY // ADVANTAGES

- **Improves durability** - Extends the service life of the surface
- **Preserves integrity** - Prevents deterioration caused by harmful chemicals, surface wear, water, atmospheric exposure and UV rays
- **Improves surface profile** - Increases coefficient of friction
- **Extends pavement life** - Prevents excessive deterioration
- **Improves aesthetics** - Creates a resilient new wear surface
- **Ease of maintenance** - Minimizes the need of surface maintenance and extends the time needed between milling existing pavements
- **Sustainable** - VOC's 0 g/L, no PAH's, no carcinogens no harmful byproducts

Compressive Strength ASTM C-109

24 hrs 2500 psi
7 days 5800 psi
28 days 7400 psi

Freeze Thaw Resistance ASTM C-666

100 cycles no damage

Applications:

- Drive thru pads
- The International Symbol of Access (ISA), also known as the (International) Wheelchair Symbol
- Crosswalks
- Balconies
- Parking lots
- Sports courts
- Interstate highways
- School campuses
- Parking decks
- Line stripping
- Bike lanes
- Driveways
- Sidewalks
- Warehouses floors
- Ramps
- Bridge decks

Appearance - Powdery substance, color varies

Packaging - 5 gallon (25lb) pails, 5 gallon (50lb) pails, 50lb bags, 3,000lb sacks.

VOC'S - 0 g/L

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Surface Prep

1. Prior to application always test a small inconspicuous area of the substrate to ensure desired performance results, aesthetics and coverage rates. Allow the test area to fully dry and cure (28 days) before evaluating and determining suitability.
2. Before attempting to apply Strong Shield 247 make sure the slab is structurally sound (free of flaking, spalling, and hibernating spalling) and that the surface is clean and bondable. Slick or glossy surfaces should be opened and/or sanded before applying Strong Shield 247, cracks and spalling should be repaired, patched, and smoothed before applying Strong Shield 247. Unrepaired cracks will remain visible in the finished surface. Strong Shield 247 should only be applied to fully cured and dried surfaces. Strong Shield 247 is resilient and will adhere to metal.
3. Always test for compatibility and adhesion.
4. Thoroughly remove all debris and dust from the surface. Painted surfaces may require sanding or de-glossing.
5. Wash the surface. Be sure to remove all grease, oil, paint, and other contaminants.
6. Allow the surface to dry completely.
7. Check the surface for damp spots or standing water before proceeding.

Mixing

Mix in a 5-gallon bucket with a 1/2 inch drill and paddle mixer.

- Use approximately 4 to 4.5 quarts of water per 50 pounds of dry overlay mixture.
- Add the water to the dry mixture and mix until it is lump-free and pourable. Allow mixture to sit for 1-2 minutes to release air.
- Temperature will affect the consistency of the unset mixture

Pot Life: Mixture will remain spreadable for approximately 30-60 minutes. If mixture dries out, do not add additional water.

Application

Hand/Squeegee application – Slowly pour the Strong Shield 247 mixture on the surface and evenly distribute the coating into a thin layer using a squeegee. **Immediately broom or finish to desired texture.**

Spray/Hopper gun: Immediately after mixing, pour Strong Shield 247 mixture into a hopper gun outfitted with large orifice. Cover 75% to 100% of the surface using a circular spray pattern. When spraying material, hold gun nozzle between 24"-32" (610-813mm) above the surface. Can be applied using a Graco TexSprayer system- requires compressed air and pre-mixed (water added).

Cure Time

Strong Shield 247 is self-curing. Do not use damp curing method. The product will initially set within 90 minutes. Cure for 4-6 hours before foot traffic and 12-24 hours before vehicle traffic. Full cure is reached in 28 days. Can be sealed for additional aesthetics after 24 hours

Multiple Layers

Strong Shield 247 may be applied in a single coat or in multiple coats. When applying multiple coats, allow the first coat to set thoroughly (24-48 hours) before starting the application of the next coat

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Coverage Rates

1/16" inch

50-lb Bag: 140-160 ft² (13-15 m²)

1 Ton: 625-715 yds² (520-595 m²)

3,000-lb sack: 935-1,075 yds² (780-890 m²)

1/8" inch

50-lb Bag: 80-100 ft² (7-9 m²)

1 Ton: 355-445 yds² (295-370 m²)

3,000-lb sack: 535-670 yds² (445-555 m²)

Temperature Parameters

Do not apply Strong Shield 247 when temperature is below 34° F/1° C or above 100° F/37° C. Do not install in rain or snow. Excessive humidity, heat, and cold will impact drying.

Recommended Tools

Squeegees, trowels, spreaders; drill and paddle mixer (for mixing product).

Clean Up

Unset Strong Shield 247 can be removed with water. Thoroughly wash all tools and equipment with plenty of water.

Safety

Use protective clothing and equipment when handling and applying Strong Shield 247. Avoid inhaling Strong Shield 247. Consult and follow the Strong Shield 247 Safety Data Sheet (SDS). Always follow the safety recommendations provided by machine and equipment manufacturers. Do not inhale. Skin and eye irritant. Skin: Contact with skin may cause irritation. Wash skin and clothing with soap and water. If irritation persists, consult a physician. Eyes: Wear eye protection when working with Strong Shield 247. If contact with eye occurs, flush eye with water for 15 minutes. If symptoms persist, consult a physician. Inhalation: Avoid prolonged inhalation of Strong Shield 247 dust, especially when mixing. Wear a respirator to avoid breathing in product. KEEP OUT OF THE REACH OF CHILDREN.

Storage

Strong Shield 247 is available in 50 lb. bags and 3,000 lb. sacks. Store Strong Shield 247 bags/sacks off the ground and out of direct sunlight. Do not allow product to freeze. Precondition materials to a minimum of 45°F/8°C before mixing. For best results, use within 12 months.

Limitations

Do not apply Strong Shield 247 to unsealed wood, wood-composite materials, uncured concrete or asphalt. Do not apply Strong Shield 247 if there is excessive ground water or hydrostatic pressure near the slab. Do not apply Strong Shield 247 in areas that are excessively hot, cold, or windy. For best results, test Strong Shield 247 in a small, inconspicuous area before fully applying.

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KreteTek Industries Inc. warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Sheet if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. KreteTek Industries Inc. makes no other warranty or guarantee, express or implied, including warranties of merchantability or fitness for a particular purpose with respect to its products. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is the replacement of product or refund of the purchase price at the sole option of KreteTek Industries Inc. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. KreteTek Industries Inc. will not be responsible for any special, incidental, consequential (including lost profits) or punitive damages of any kind.

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For professional use only.
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