



Sections

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Strong Shield™ 365

6000 PSI, HIGH-STRENGTH, SINGLE COMPONENT, THIN CEMENTITIOUS OVERLAY ENGINEERED FOR HIGH TRAFFIC AREAS. IT PERMINANTLY BONDS TO EXISTING, OLD, SPALLING, BROKEN OR CRACKED CONCRETE TO TRANSFORM, PROTECT AND RENEW SURFACES.

Description

Strong Shield™ 365 is designed to resurface high-traffic concrete surfaces without compromising color, design, or texture. It's a proprietary, single-component, self-bonding, cementitious overlayment available in both white and gray Portland cement bases.

Strong Shield™ 365 can transform old, spalled, or worn-down concrete by eliminating surface defects, increasing wearability and coefficient of friction (COF).

Although it was designed to renovate broomed concrete exterior surfaces, a variety of textures and designs can be achieved for exterior flatwork or interior floors: Broom, Stipple (Bubble Finish), Swirl, Wood

Grain, Sponge Float, and Eur-Texture (Slop Trowel).

Strong Shield™ 365 is formulated and optimized for exterior applications such as parking lots, parking garages, ramps, stairwells, and walkways where heavy foot or vehicular traffic is present.

Packaging

50 pound bag (22.7 kg)

Mix Ratio

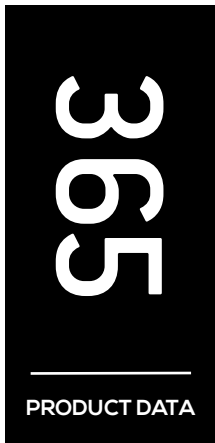
4 to 6.5 quarts (3.8 - 6.2 liter) water to one 50-pound bag (22.7 kg) StrongShield™ 365

Coverage

One 50-pound (22.7 kg) bag of = approximately 0.46 ft³
Base Coat = 100 to 180 ft²
Finish Coat = 150 to 250 ft²

*NOTE: Finish coat coverage range varies on desired texture being created.





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TECHNOLOGY // ADVANTAGES

- **High Compressive Strength** - Increased durability and strength for high demand surfaces and applications.
- **Increased COF (Coefficient of Friction)** - Reduces slip and increases surface profile for added grip and dependability.
- **Extends Service-Life** - Protects surfaces and prevents deterioration of surface.
- **Easy Maintenance / Improved Aesthetics** - Creates a consistent surface profile using smooth to semi-smooth texture.

Density

132 pounds/ft³ (2,114 kg/m³)

Compressive Strength ASTM C-109

28 days 6,128 PSI (42,251 kPa)

Flexural Strength ASTM C-348

28 days 1,575 PSI (10,859 kPa)

Tensile Strength ASTM C-190

28 days 910 PSI (6,274 kPa)

Abrasion Resistance ASTM D-4060

1 day - 1 gram lost

7 days - 1 gram lost

Shear Bond ASTM C-882

Modified / mortar scrubbed into substrate

7 days - 1,232 PSI (8,494 kPa)

28 days - 1,695 PSI (11,686 kPa)

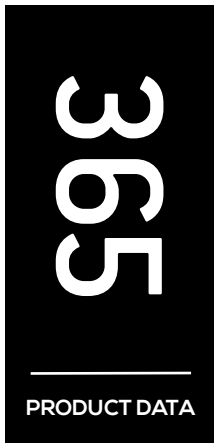
APPLICATIONS // SUBSTRATES

Ideal for Use On:

- Drive thru pads
- Crosswalks
- Balconies
- Parking lots
- Sport courts
- Interstate highways
- Parking decks
- Bike lanes
- Driveways
- Parks
- Educational facilities
- Medical facilities
- Multifamily
- Manufacturing facilities
- Sidewalks
- Warehouse floors
- Ramps
- Bridge decks

Substrates:

- Concrete
- Brick/clinker
- Sandstone
- Terra-cotta
- Limestone
- Marble and granite
- Glass fiber reinforced concrete
- Mineral-based stucco
- Mineral-based paints



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APPLICATION INSTRUCTIONS

Surface Prep

The principles for surface preparation for Strong Shield™ 365 are aligned with cement-based overlays placed on concrete and remain constant. The substrate must be:

- 1. Clean:** The surface must be free of dust, dirt, oil, grease, paints, glues, sealers, curing agents, efflorescence, chemical contaminants, rust, algae, mildew, and other foreign matter that may serve as a bond breaker.
- 2. Cured:** Any concrete must be sufficiently cured to have sufficient hydration, approximately 7 to 14 days depending on temperatures and humidity.
- 3. Sound:** No system should be placed on concrete that is flaking, spalling, or has hibernating spalling.
- 4. Profiled:** Proper profile should follow the standard established by the International Concrete Repair Institute (ICRI) Technical Guideline No. 03732 for Concrete Surface Profile (CSP). The required profile is a CSP-2 through CSP-4.

NOTE: The most common means to profile many concrete slabs (especially exterior slabs) is through the use of a pressure washer equipped with a turbo-tip and the use of Ghostshield Etching products or Micro-Degreaser 1100. Some concrete slabs that are hard troweled or that are not sound may require more aggressive profiling through diamond grinding or shot blasting.

Patching & Crack Treatment

Once proper surface preparation has been achieved by either mechanical or chemical techniques, patching and crack treatment can be addressed. Patching can be done by the use of a fast setting thin concrete patch repair product. The proper patch choice is determined by the depth of the patch and speed of cure.

All cracks should be evaluated and determined if they are moving or static. Cracks that are determined to be "static" can be treated with a fast cure two-part urethane or epoxy.

Never bridge any joint in concrete. Construction joints are designed to move and will telegraph through crack treatment, patching materials, and Strong Shield™ 365 applications.

Temperature / Cure

Air and substrate surface temperatures shall remain between 50°F (10°C) and 90°F (32°C) during and within 48 hours of placement.

No precipitation should occur during or within 48 hours of placement.

Avoid high heat and/or windy conditions. Attempt to minimize application during such harsh conditions by working during cooler hours.



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APPLICATION INSTRUCTIONS

Keep materials shaded prior to mixing, running water until cool, and setting up temporary walls for wind blocks.

Interior applications and cool, shaded areas will take significantly longer to cure.

This product will cure similar to concrete. Depending on weather conditions, it may achieve initial set within 2 to 8 hours. Like concrete, full cure is reached at 28 days.

Mixing

Due to Strong Shield™ 365 diverse applications and textures, there can be a significant difference in water demand between systems. Additionally, porosity of substrate and environmental conditions will affect water demand. Approximate water demands for Strong Shield™ 365 (50-pound bag) is 4 to 6.5 quarts (3.8 - 6.2 L) of clean water. While water demands vary, the steps for mixing remain constant:

1. Carefully measure needed clean water and pour into a 5-gallon (18.9L) pail.
2. Slowly introduce Strong Shield™ 365 into the pail while the mixer is running.
3. After all Strong Shield™ 365 has been added to the pail, scrape side of pail with a margin trowel to ensure all dry product is incorporated into the wet mix.

4. Continue to mix for a minimum of one minute after all ingredients are combined to achieve a lump-free consistency. Additional water can be added at this time, with total water demand not exceeding 6.5 quarts.

Application

On larger projects the use of a mortar mixer is allowed for the proper mixing of Strong Shield™ 365. Careful consideration should be given to ensure water is properly measured to the exact bags of Strong Shield™ 365 being mixed (as mentioned in steps 1-4 under Mixing).

All Strong Shield™ 365 applications are recommended to have a two-coat system, comprised of a Base Coat and a Finish Coat.

Base Coat

The base coat for Strong Shield™ 365 may be sprayed or applied with a broom, trowel, or squeegee. The intent of the base coat is to create a uniform substrate, which will allow for the finish coat to create the desired texture and finish. In the case of recreating a broom finish, the most common application is to broom the base coat and finish coat. The techniques listed below are based on application choice:

Concrete Broom

1. Once the substrate has been properly prepped, ensure the



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- surface is SSD (saturated surface dry) with no standing puddles.
2. Pour a generous ribbon of Strong Shield™ 365. Using a standup squeegee, tightly squeegee the ribbon of Strong Shield™ 365 to the substrate, covering the entire area, by pushing the product.
 3. While the base coat is still wet, use the concrete broom to evenly create the desired broom texture, by lightly dragging the broom in the same direction each time. Take care not to leave edges high from where you start and stop.

Trowel / Squeegee

1. Once the substrate has been properly prepped, ensure the surface is SSD (saturated surface dry) with no standing puddles.
2. Pour a generous ribbon of Strong Shield™ 365. Tightly squeegee the ribbon of Strong Shield™ 365 to the substrate, covering the entire area, by pushing and/or pulling the product. Take care not to leave edges high from where you start and stop.

Note: If a broom finish is desired, while material is still wet, use a concrete broom and lightly drag the broom in the same direction each time. Take care not to leave edges high from where you start and stop.

Spraying

1. Once the substrate has been properly prepped, ensure the surface is SSD (saturated surface dry) with no standing puddles.
2. The spray gun should have its tip adjusted/placed to a ¼"

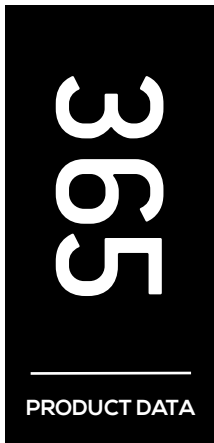
- (6.3mm). Other size orifices can be used, but will change the amount and flow of the material.
3. Setting for air compression should be approximately 8 ft² (.23m³) per minute at 40 psi (276 kPa) continuous.
4. Spray material straight down. Material should be placed at 100% coverage. This can be done by spraying in a circular motion, with material placed at the volume of it almost wanting to flow and self-level.

Note: If a broom finish is desired, while material is still wet, use a concrete broom and lightly drag the broom in the same direction each time. Take care not to leave edges high from where you start and stop.

Stencil & Tape Patterns (Optional)

Adhesive and Non-Adhesive stencils along with fiber reinforced tapes can elevate design elements in a Strong Shield™ 365 floor application. Apply any adhesive or non-adhesive stencils or tapes, once the overlay has dried to a uniform moisture level and can bare the weight of you walking on it (typically in 2 to 8 hours, depending on environmental conditions).

1. Scrape the floor or use a rubbing stone to eliminate all unwanted rough edges and or material standing taller than desired. Sweep floor so that it is free of all loose contaminants.
2. Stencils and tape patterns should be placed. Ensure that adhesive materials are pressed down to the surface, as to achieve maximum bond strength.



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APPLICATION INSTRUCTIONS

Finish Coat

The finish coat for Strong Shield™ 365 can be sprayed or applied by broom, trowel, or squeegee. The intent of the finish coat is to create the desired texture and finish i.e.: Broom, Stipple (Bubble Finish), Swirl, Wood Grain, Sponge Float, Euro-Texture (Slop Trowel).

In the case of recreating a broom finish, the most common application is to broom the finish coat in the same direction as the base coat.

1. The base coat should be dried long enough so that it is a uniform moisture level and can bare the weight of the applicator. Approximately 2 to 8 hours, depending on environmental conditions (temperature, wind, humidity, direct sunlight).
2. Scrape the floor or use a rubbing stone to eliminate all unwanted rough edges and or material standing taller than desired. Sweep floor so that it is free of all loose contaminants.
3. The finish coat is applied in the same fashion as the techniques of the base coat mentioned above.
4. Stencils and tape patterns may be removed as soon as the finish coat has dried to a uniform moisture level and can bear the weight of the applicator walking on it. How soon the stencil or tape patterns are removed can cause the material to chatter differently adding a 3D element to the patterns created.

Sealing

To complete a Strong Shield™ 365 floor application, sealing is required. For interior and exterior applications where a natural finish is desired, use an impregnating sealer such as:

- Siloxa-Tek® 8500 - Water & Salt Repellent

For interior and exterior applications where a high or low gloss finish is desired, use an acrylic coating / sealer such as:

- Cryli-Tek® 5500 - Water-based Acrylic
- Cryli-Tek® 5505 - Solvent-based Acrylic

For additional finishes and sealer options, discuss with Ghostshield representatives.

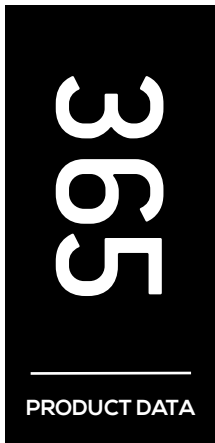
Slip Resistance

Every Strong Shield™ 365 project should be engineered with safety in mind, guidelines can be found from OSHA (Occupational Safety and Health Administration) and the ADA (Americans with Disabilities Act). The applicator assumes responsibility to meet these standards.

Achieving these COF ranges can be done in one of two ways: texture created by the cementitious overlay or the use of a gripping agent within desired sealer or coating.

Clean-Up

Before Strong Shield™ 365 dries, clean spills and tools with water.



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Disposal

Waste disposal must be in accordance with existing federal, state and local environmental control laws. Incineration is the preferred method of disposal.

Limitation

For use by trained professionals that have read the complete SDS.

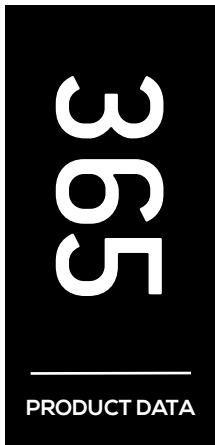
- Strong Shield™ 365 is formulated for use over concrete that is structurally sound, non-moving, and thoroughly clean.
- Strong Shield™ 365 floor system requires a sealer or coating. The limitations of chosen sealer/coating can have an effect on finished system. Refer to the TDS of chosen sealer/coating.
- Strong Shield™ 365 must NOT be used in areas subject to hydrostatic pressure, active water leaks, or continuous water immersion.
- Strong Shield™ 365 as with most cement-based products will have cracks or joints in the substrate reflect through.
- All substrate joints should be honored and extended up through the full depth of the Strong Shield™ 365. The installation must be engineered to allow for expansion and contraction of both the substrate and the Strong Shield™ 365.
- Strong Shield™ 365 by itself, is NOT designed to withstand harsh chemicals.

Warranty

KreteTek Industries Inc. warrants our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Any use or application other than recommended herein is the sole responsibility of the user. Listed physical properties are typical and should not be construed as specifications. No warranty is made, expressed or implied, regarding such other information, the data on which it is based or the results you will obtain from its use. We shall have no liability for incidental or consequential damages, direct or indirect.

No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products.

Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sales of our products. Our products contain chemicals that may cause serious physical injury.



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APPLICATION INSTRUCTIONS

Before using, read the Safety Data Sheet and follow the precautions to prevent bodily harm.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on KreteTek Industries Inc. present knowledge and experience. However, KreteTek Industries Inc. assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. KreteTek Industries Inc. reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.

For professional use only.

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KreteTek Industries Inc.
66 River Road
Hudson, NH 03051

www.Ghostshield.com

Customer Service and Technical Support
1-855-KreteTek (1-855-573-8383)