



SURECRETE®



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www.surecretedesign.com/product/concrete-broom-overlay

SURE BROOM

COMMERCIAL TRAFFIC
CONCRETE OVERLAYMENT

DESCRIPTION

SureCrete SureBroom™ is designed to resurface high-traffic concrete surfaces without compromising color, design, or texture. SureBroom is a proprietary, single-component, self-bonding, cement based overlayment, in both white and gray Portland cement bases. SureBroom, when applied, can transform old, spalled or worn-down concrete by eliminating surface defects, increasing wear ability and coefficient of friction (COF).

Although SureBroom was designed to renovate broomed concrete exterior surfaces, a variety of textures and designs can be achieved for exterior flatwork or interior floors:

- Broom Finish
- Stipple (Bubble Finish)
- Swirl
- Wood Grain
- Euro-Texture (Slop Trowel)

SureBroom 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. These venues include theme parks, educational, medical, warehousing, multi-family, and manufacturing. When SureCrete SureBroom is properly applied and sealed, it will produce an attractive high strength wear surface with a long life-cycle and low maintenance. SureBroom applications do not contribute to Sick Building Syndrome (SBS) and when sealed with a resinous coating, can create an allergen-free flooring solution.

SureBroom is often applied by concrete broom. Project size and desired texture can allow for SureBroom to be placed by: trowel, float, squeegee, brush, gravity feed hopper, or rotor/stator pump system. SureBroom may also be colored by using any of the 30 standard SC TruColor premeasured color packs.

BENEFITS

- High Compressive Strength
- Increase COF (Coefficient of Friction)
- White & Gray Cement Bases

SURFACE PREP

The principles for surface preparation for SureBroom 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 - 14 days depending on temperatures and humidity.
3. Sound: No system should be placed upon concrete that is flaking, spalling, or has hibernating spalling. Mechanical prep is required.
4. Profiled: Proper profile should follow the standard established by the International Concrete Repair Institute (ICRI) Technical Guide-line 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 a pressure washer, equipped with a turbo-tip and the use of [SCR](#) (see SCR TDS). Some concrete slabs

QUICK FACTS

PRODUCT NAME SureBroom™

PACKAGING 50 lb. Bag (22.7 kg)

COVERAGE

1 - 50 lb. (22.7 kg) bag of SureBroom™ = approximately .46 ft³
 Base Coat = 100 - 180 ft²
 Finish Coat = 150 -250 ft²*

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

MIX RATIO / WATER DEMAND

4 - 6.5 qt. (3.8 - 6.2 liter) water to 1 - 50 lb. bag (22.7 kg) of SureBroom™

that are hard troweled or that are not sound may require more aggressive profiling using 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 using [Flash Patch™](#) or [Deep Patch™](#). Proper choice is determined by the depth of the patch and speed of cure. Refer to the TDS for proper application.

All cracks should be evaluated and determined if they are moving or static. Cracks that are determined to be "static" can be treated through the application of [SCT-22](#) (fast cure 2-part urethane) [SCT-EP](#) (epoxy and sand based). See appropriate TDS for application.

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

TEMPERATURE / CURE

1. Air and substrate surface temperatures shall remain between 50°F (10°C) and 90°F (32°C) during and within 48 hours of placement.
2. No precipitation should occur during or within 48 hours of placement.
3. Avoid high heat and / or windy conditions. Attempt to minimize application during such harsh conditions by working during cooler hours. Keep materials shaded prior to mixing, running water until cool, and setting up temporary walls for wind blocks. The use of Surface Delay or Retarder may aid these environmental situations, see appropriate TDS.
4. Interior applications and cool, shaded areas will take longer to cure.
5. This product will cure with the same similarities as concrete. Depending on weather conditions, it may achieve initial set within 2 - 8 hours. Like concrete full cure is reached at 28 days.

COLORANT

SureBroom can be integrally colored using [SC TruColor](#) color packs. To match the "Master" SureCrete Color Chart, SC TruColor must be used with the (white) SureBroom bag mix and sealed with a color enhancing sealer. Use of SC TruColor will work inside the (gray) SureBroom bag mix, but will not match a color chart.

MIXING

Due to SureBroom's diverse applications and textures, there can be a significant difference in water demand between systems. Additionally, porosity of substrate and environmental conditions can affect water demand as well. Approximate water demands for SureBroom (50 lb. bag) is 4 - 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. If color is desired, use (1) SC TruColor™ color pack per 50lb. bag of SureBroom. Open SC TruColor and pour all the contents into the clean water in the 5-gallon pail.
3. Thoroughly mix the SC TruColor into the water, with a handheld concrete mixer equipped with a "Cage Mixing Blade", on low speed for a minimum of 15-seconds.
4. Slowly introduce SureBroom into the pail while the mixer is running.
5. After all SureBroom 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.
6. Continue to mix for a minimum of 1-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.

NOTE: On larger projects the use of a mortar mixer is allowed for the proper mixing of SureBroom. Careful consideration should be given to ensure water and color packs are properly measured to the exact bags of SureBroom being mixed (as mentioned in steps 1-6 under Mixing).

APPLICATION

All SureBroom applications are recommended to have a two-coat system, comprised of a Base Coat and a Finish Coat. If SC TruColor is going to be used, it should be added to both coats for the most accurate finish color. In many cases, applicators use spiked shoes during application.

BASE COAT

The base coat for SureBroom can be applied by: broom, trowel, squeegee, or sprayed. The intent of the base coat is to create a uniform substrate, which will allow for the finish coat to create the desired texture/finish. In the case of recreating a broom finish, the most common application is to broom the base coat and finish coat. The below mention techniques are based on application choice:

Concrete Broom

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 SureBroom. Using a standup squeegee, tightly squeegee the ribbon of SureBroom 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 SureBroom tightly squeegee the rib-

bon of SureBroom 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**.

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 flowability 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 SureBroom floor application. When applying an adhesive stencil or tape, the overlay must be dried for a minimum of 8-hours, so that the adhesive adheres and does not pull any unwanted material away. For non-adhesive stencils, they may be applied once the overlay has cured to an even color/moisture level and can bare the weight of you walking out onto it (typically in 2-8 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 and blow the 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.

FINISH COAT

The finish coat for SureBroom can be applied by: broom, trowel, squeegee, or sprayed. The intent of the finish coat is to create the desired texture/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 2-8 hours, depending on environmental conditions (temperature, wind, humidity, direct sun light).
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 above 3 mentioned techniques of the base coat.
4. Stencils and tape patterns may be removed as soon as the finish coat placed has dried to a even color/moisture level and can bare the weight of the applicator walking out onto it. How soon the stencil or tape patterns are removed can cause the material to chatter differently adding a 3-D element to the patterns created.

SECONDARY COLORING

Depending on the finish coat texture selected, the use of secondary coloring is ideal. This process can complete the 3-D effect and open up unlimited color designs. One may choose any of the 3 below listed secondary coloring products:

[Eco-Stain](#) - Water based penetrating UV-stable translucent concrete stain (29 colors)

[Eco-Accent](#) - Dry antiquing agent that can be dispersed via its mixture into water or a solvent (10 colors)

SureStain - Low residue reactive acid stain (8 colors)

1. Once the finish coat has dried sufficiently, and all stencil and tape patterns have been removed. Ensure the surface is free of all loose contaminants by scrapping, sweeping, blowing, and/or vacuuming the floor.
2. Follow the application techniques from the TDS of the secondary coloring choice.

SEALING

To complete a SureBroom floor application, sealing is required. In cases where SC TruColor was added to the SureBroom and no secondary coloring was used, it should be sealed with a ColorTec sealer or coating (to ensure uniform color) such as:

- [ColorTec Acrylic](#) - 600 g/L Pigmented Solvent Acrylic
- [ColorTec Acrylic LV](#) - 400 g/L Pigmented Solvent Acrylic
- [ColorTec Acrylic WB](#) - 100 g/L Pigmented Water Based Acrylic
- [ColorTec 400](#) - Pigmented Solvent Polyurethane
- [ColorTec 400 WB](#) - Pigmented Water Based Polyurethane
- [ColorTec 180](#) - Pigmented Polyaspartic

In the flooring applications where a secondary coloring option has been used and a clear exterior sealer is recommended such as:

- [HS 300](#) - Slow Evaporating Clear Solvent Acrylic
- [HS 300 LV](#) - Slow Evaporating Clear Low VOC Solvent Acrylic

For flooring applications where a secondary coloring option has been used and a clear interior coating is recommended such as:

- [DK 400](#) - Solvent Polyurethane
- [DK 400 WB](#) - Water Based Polyurethane
- [DK 120](#) - Polyaspartic

Follow the application techniques from the TDS of the selected sealing choice from above.

SLIP RESISTANCE

Every SureBroom 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. The ADA directs that accessible walkways have a minimum COF (coefficient of friction) of 0.6. On ramps the ADA directs that it should be 0.8.

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 (see TDS for SureGrip™) within desired sealer or coating. On the TDS

for SureGrip you will find a COF chart. SureCrete will help guide and design floor systems to achieve needed COF on commercial and industrial projects.

SUITABILITY SAMPLE

Due to condition specific sites, always prepare an adequate number of test areas. Wear protection system and aesthetic suitability for products' intended use should be included. On site sample approval is especially critical on substantial, heavy traffic situation or custom coloration.

CLEAN-UP

Before SureBroom™ dries; spills and tools can be cleaned up with water.

DISPOSAL

Contact your local government household hazardous waste coordinator for information on disposal of unused product.

LIMITATIONS

- For use by trained professionals that have read the complete SDS.
- SureBroom™ is formulated for use over concrete that is structurally sound, non-moving and thoroughly clean.
- SureBroom™ floor system requires a sealer or coating. The limitations of chosen sealer/coating can influence finished systems. Refer to the TDS of chosen sealer/coating.
- SureBroom™ must NOT be used in areas subject to hydrostatic pressure, active water leaks, or continuous water immersion.
- SureBroom™ 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 SureBroom™. The installation must be engineered to allow for expansion and contraction of both the substrate and the SureBroom™.
- SureBroom™ by itself, is NOT designed to withstand harsh chemicals, like concrete and other cement based products.

WARRANTY

Warranty of this product, when used according to the directions, is limited to refund of purchase price, or replacement of product (if defective), at manufactures/seller's option. SureCrete Design Products shall not be liable for cost of labor or direct and/or incidental consequential damages.

WARNING

KEEP OUT OF REACH OF CHILDREN. Inhalation: Avoid prolonged breathing of airborne dust, particularly present during mixing. Use NIOSH approved respirator for nuisance if threshold limit values are unsafe. **Skin Contact:** Skin contact may cause irritation. Remove contaminated clothing and wash affected skin with soap and water. Launder clothing before reuse. If symptoms persist, seek medical attention. **Eyes:** Wear safety eye protection when applying. Contact with eyes may cause irritation. Flush eyes with water for 15 minutes. If symptoms persist, seek medical attention.

SAFETY DATA SHEETS (SDS)

The following are links to all available safety data sheets related to this product:

[SureBroom - Safety Data Sheet](#)

SHELF LIFE

Under normal conditions: when kept dry and moisture free, out of direct sunlight, the shelf life of an unopened container is (12) months from the date of purchase. Storage must be under roof and off the floor. Avoid temperature extremes. Rotate inventory to maintain product that is within limits.

TESTING DATA

DENSITY

132 pounds/ft³ (2114 kg/m³)

COMPRESSIVE STRENGTH - ASTM C-109

28 Days 6128 PSI (42251 kPa)

FLEXURAL STRENGTH - ASTM C-348

28 day 1575 PSI (10859 kPa)

TENSILE STRENGTH - ASTM C-190

28 day 910 PSI (6274 kPa)

ABRASION RESISTANCE ASTM D-4060

1 day 1 gram lost

7 day 1 gram lost

SHEAR BOND ASTM C-882

Modified / mortar scrubbed into substrate

7 day 1232 PSI (8494 kPa)

28 day 1695 PSI (11686 kPa)

MANUFACTURER PART

Gray - 50 lb. (22.7 kg)

SKU # 25101003

White - 50 lb. (22.7 kg)

SKU # 25101004