

# SUREBROOM™

## TECHNICAL DATA SHEET



### 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, cementitious overlayment available in both white and gray Portland cement bases. **SureBroom** 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
- Stipple (Bubble Finish)
- Swirl
- Wood Grain
- Sponge Float
- 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, multifamily, and manufacturing. When SureCrete **SureBroom** is properly applied and sealed, it will produce an attractive high-strength wear surface with a long lifecycle 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 pre-measured color packs.

### BENEFITS

- High Compressive Strength
- Increased COF (Coefficient of Friction)
- White and Gray Cement Bases

## QUICK FACTS

### PACKAGING

50-pound Bag (22.7 kg)

### MIXING RATIO

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

### COVERAGE

One 50-pound (22.7 kg) bag of SureBroom™

= approximately 0.46 ft<sup>3</sup>

Base Coat = 100 to 180 ft<sup>2</sup>

Finish Coat = 150 to 250 ft<sup>2</sup>\*

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

### SHELF LIFE

Under normal conditions: when kept dry and moisture free, out of direct sunlight, the shelf life of an unopened container is twelve (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.



### 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 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 a pressure washer equipped with a turbo-tip and the use of SCR (see [SCR TDS](#)). 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 [Flash Patch™](#) or [Deep Patch™](#). The proper patch 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 two-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

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. 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.

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 & APPLICATION

### 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 will affect water demand. Approximate water demands for **SureBroom** (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. If color is desired, use one (1) [SC TruColor™](#) color pack per 50-pound 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 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

*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).*

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.

### BASE COAT

The base coat for **SureBroom** 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 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 ribbon 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.

*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 ft<sup>2</sup> (.23m<sup>2</sup>) 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. 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.

## FINISH COAT

The finish coat for **SureBroom** 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.

## **SECONDARY COLORING**

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

**Eco-Stain** - Water based penetrating 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 scraping, sweeping, blowing, and/or vacuuming the floor.

*NOTE: If the floor is troweled tightly, the use of SCR at a 4-1 dilution rate is advised to open the pores of the surface. Once the surface is completely dry, you can begin the secondary color application*

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 such as:

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

For exterior flooring applications where a secondary coloring option has been used, 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 interior flooring applications where a secondary coloring option has been used, 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.

## 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 proper protection system and include aesthetic suitable for products' intended use. Onsite sample approval is especially critical in a substantial, heavy traffic situation or with custom coloration.

## CLEAN-UP

Before SureBroom™ dries, clean spills and tools 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 have an effect on finished system. 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.

## 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 manufacturer's or seller's option. SureCrete LLC shall not be liable for cost of labor or direct and/or incidental consequential damages.

## CAUTIONS

**KEEP OUT OF REACH OF CHILDREN. Inhalation:** Avoid prolonged breathing of airborne dust, particularly present during mixing. Use a 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.

## TESTING DATA

### DENSITY

132 pounds/ft<sup>3</sup> (2,114 kg/m<sup>3</sup>)

### 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)

## SAFETY DATA SHEETS

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

[SureBroom Safety Data Sheet \(SDS\)](#)

## MANUFACTURER PART #'S

Gray 50 lb. (22.7 kg)

SKU # 25101003

White 50 lb. (22.7 kg)

SKU # 25101004

## VOC REGULATORY COMPLIANCE

AIM	OTC	LADCO	CARB	SCAQMD	CANADA
<input checked="" type="checkbox"/>					