

BIOCEM SLF-2

URETHANE CEMENT DECORATIVE FLAKE SYSTEM

BioCem SLF is a high-performance hybrid urethane cement and seamless flake broadcast system designed for demanding commercial environments. It begins with a 1/8" polyurethane concrete slurry base coat, followed by two layers of decorative flake with high-performance/impact resistant intermediate coats. The system is then grouted using either a high-solids, chemical-resistant polyaspartic or a crystal-clear 100% solids epoxy. A final topcoat of aggregate-reinforced, high-wear urethane is applied, available in either a satin or semi-gloss finish.

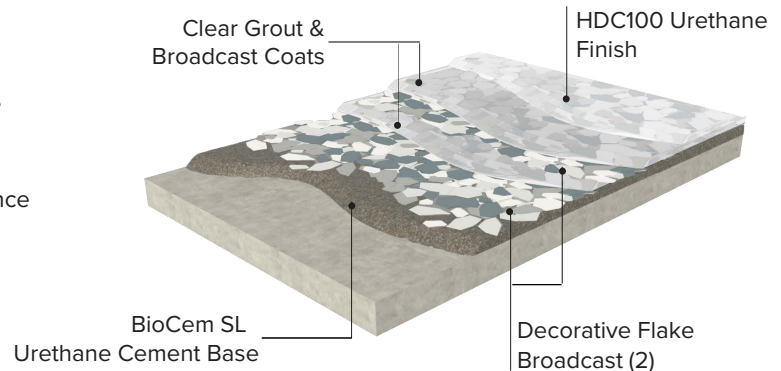
Customizable in color, texture, and slip resistance, BioCem SLF can be tailored to suit a wide range of substrate conditions and project timelines. All components are third-party tested and certified to meet CDPH/EHLB Standard Method v1.2 (2017) for low VOC and chemical emissions, ensuring a safe and environmentally responsible installation.

Applications

- Veterinary Clinics
- Education
- Healthcare
- Grocery Stores
- Kitchens

Features:

- Resistant to high moisture
- Anti-Microbial
- No harmful emissions
- Superior abrasion resistance
- High Impact Resistance



Colors & Finishes

Available in 16 standard Resinwerks Flake blends with custom colors available to match any environment. The system is available with a semi-gloss or satin finish.

System Components

- 1. Base Coat:** BioCem™ SL Urethane Cement is applied at 1/8". Kit components include 1-gallon of part A, 1-gallon of part B and One 42-lb. filler. Pigment may be added at a rate of 1 pigment pack per kit. Broadcast decorative flake to rejection.
- 2. Grout & Broadcast Coats:** LevelGuard Clear 100% Solids cycloaliphatic epoxy OR Kinetic™ HS Polyaspartic. Depending on desired texture, the grout coat may be sanded or applied in 2-lifts for a smoother finish.
- 3. Top Coat:** HDC 100 High Traffic Urethane is a durable high-traffic urethane that is fortified with silver-ion anti-microbial pigments. Lightly textured satin or semi-gloss finish.

SURFACE PREPARATION

Ensure substrate to be coated is clean, dry, and in sound condition. All laitance, curing compounds, concrete hardeners, and other surface contaminants must be removed. Prepare concrete in accordance with ASTM D 4259-83. Mechanical Shot Blasting is recommended to achieve a surface profile of ICRI CSP 3-4. Surface to be coated must be completely porous, thoroughly vacuumed, and free of excessive dust & contaminants.

MOISTURE IN CONCRETE

Concrete slabs should be tested prior to application for elevated moisture vapor emission levels. Resinwerks recommends ASTM F2170-19 standard for determining relative humidity in concrete slabs using RH probes. Moisture level results will determine recommended mil thickness for application.

GENERAL SYSTEM PERFORMANCE - SC-100

TEST TYPE		RESULT
Compressive Strength	ASTMC 695	10,500 PSI
Water Absorption	ASTMD 570	< .1%
Impact Resistance	ASTMD 2794	> 160
Adhesion Pull-Off	ASTMD-4541	+500 PSI concrete fracture
Elongation / Tensile	ASTMD 638	2500 psi
Flexibility 1/4" cylindrical mandrel	ASTMD 522I	Pass
Hardness / Shore D	ASTMD 2240	92
Abrasion Resistance	ASTMD 4060	16 mg Loss

For Professional Use Only

Please reference all product Technical Data and Material Safety Data Sheets prior to use. Mock-ups are strongly recommended to validate appearance and performance prior to use.

BioCem SLF

DE-GREASING OF CONTAMINATED SUBSTRATES

For concrete substrates containing oil or other carbon based contaminants, slabs should be de-greased appropriately using an enzymatic based concrete de-greasing agent. Multiple applications may be required depending on the level of contamination.

TREATMENT OF JOINTS & CRACKS

Prior to installation of any Resinwerks primer, all joints, cracks and other substrate irregularities must be addressed. For more information on specific joint treatment procedures, please reference Resinwerks joint-treatment guidelines.

COVE BASE

For projects requiring a perimeter vertical cove base, please reference Resinwerks cove base installation guidelines or contact your local Resinwerks representative for more information.

COATING APPLICATION

1. Base Coat: BioCem™ SL Urethane Cement

- **Mixing:** Review BioCem™ SL Product Data Sheet Prior to mixing. Prior to mixing, all products should be properly acclimated to the local ambient room temperature of 50°F(4.4°C)-80°F(29.4°C).
- Pour 1-gal A into a large mixing vessel or hippo mixer. Add pigment and mix for 15-seconds with a slow speed mixing drill. Add 1-gallon Part B and mix for an additional 15-seconds. Slowly add entire contents of 40 lb bag of SL filler to mix. Take special care not to introduce air or create a vortex. Mix for approximately 45-60 seconds or until materials are properly mixed.
- **Application:** Immediately following mixing, spread material with a gauge rake at 1/8" thickness. Lay abutting edges within a minimum of 10-minutes to ensure a uniform transition. Back-roll with a spiked roller to release surface tension.
- Broadcast Flakes to rejection directly into base coat. Once cured, excess flakes should be removed, scraped smooth and thoroughly vacuumed prior to the next coat.

2. Second Broadcast Coat: LevelGuard™ Clear

- **Mixing:** Thoroughly agitate part A prior to mixing. Mix 2-parts A to 1-Part B by volume for 2-3 minutes using a slow speed jiffy mixer. Make certain that material is properly mixed. Only mix in metal buckets as left-over material can become hot and will melt a plastic bucket. After mixing, get the material out of the bucket and apply material as soon as possible to avoid issues.
- **Application:** Immediately following mixing, pour onto substrate in a uniform ribbon and spread evenly with a notched squeegee. Apply at a recommended coverage rate of 12-16 mils or 100-130 sq.ft. per gallon.

2(b). Second Broadcast Coat Option 2:

Kinetic™ HS Polyaspartic

- **Mixing:** Agitate part A prior to mixing. Mix 1-part A to 1-Part B by volume for two minutes using a slow speed jiffy mixer.
- **Application:** Immediately following mixing, pour onto substrate in a uniform ribbon and spread evenly with a flat squeegee. Standard recommended coverage is 150 SF per gallon. Immediately back-roll with a non-shedding roller. Use a brush or small roller to cut-in along perimeter walls or any other obstructions.
- Re-Broadcast flakes to rejection. Once cured, excess flakes should be removed, scraped smooth and thoroughly vacuumed prior to the next coat.

3. Grout Coat: LevelGuard Clear or Kinetic HS Polyaspartic

- Once flakes have been fully scraped and vacuumed, apply grout coat using either LevelGuard Clear or Kinetic HS Polyaspartic using application processes outlined in previous steps.
- LevelGuard Clear: Apply at 12-16 mils or 100-130 sq. ft. per gallon.
- Kinetic HS Polyaspartic: Apply at a rate of 10-12 mils or 130-150 sq. ft. per gallon.

4. Top Coat:

- HDC 100 Urethane:
- **Mixing:** Mix complete kit for two minutes using a slow speed jiffy mixer. While mixing pour complete contents of HDC 100 aggregate into mix, taking care to properly suspend all aggregates. For satin finish, thoroughly agitate part B as matting agents may settle over time.
- **Application:** HDC 100 should be applied at about 3-4 mils DFT with a coverage rate of approximately 550 square feet per pigmented kit by pan rolling with a 3/8 nap roller. For proper appearance, dip the roller in the coating and lightly roll out excess in the application tray. Take care to spread the material evenly and immediately back-roll in a perpendicular fashion. Frequently agitate material in both the pan and mixing vessel during application process to keep aggregates properly suspended

Important:

Inhalation of vapor or mist can cause headache, nausea irritation of nose, throat, and lungs. Avoid breathing vapors, it is strongly recommended that respirators are worn. Prolonged or repeated skin contact can cause slight skin irritation. All epoxies have the potential of causing skin irritations or allergic reactions. Be careful not to get on skin, clothes or in eyes. Gloves are strongly recommended. If splashed in the eye, flush with warm water and contact a physician if blurring persists.

Solvent based products are extremely flammable, extinguish all pilot lights and sources of ignition such as electrical motors. Be sure to have adequate cross ventilation prior to installing.

Resinwerks recommends the use of slip-resistant additives in all coating systems that are subject to heavy foot traffic and especially those within wet or oily environments. It is the end-user's responsibility to provide flooring that meets current safety standards and local coefficient of friction requirements. Resinwerks nor any of its distributors are responsible for injury resulting from any slip and fall incident.



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