

HybridCrete SLBF

Description

HybridCrete SLBF is a 100% solids, low odor, colored flake system. It is composed of an 1/8 inch of PlexiCrete MF Body Coat, topped with a decorative flake broadcast, a 1/16 coat of PlexiGlaze #4, and two top coats of clear, two-component aliphatic polyaspartic PlexiCrest XP...generating a total system thickness of 1/4 inch.

Urethane Mortar

- A three component, flowable 100% solids urethane mortar system that is applied at an 1/8th inch or greater thickness.

High Performance Epoxy Base Coat

- A two-component, 100% solids epoxy bonding coat. A colored or clear coat that accepts the flakes.

Decorative Flakes

- Brightly colored flakes
- Lock Coat: PlexiGlaze #4 Topcoat

Urethane Sealer

- A two-component, UV resistant, aliphatic Polyaspartic urethane sealer.

Leader in BBP (Benzyl Butyl Phthalate) free seamless urethane mortar flooring.

Typical Advantages

- **Chemical Resistance** – polyurethane technology provides superb protection against caustics, organic and inorganic acids, solvents and most chemicals used today in industry.
- **Thermal Shock Resistance** – HybridCrete SLBF and concrete have a similar coefficient of thermal expansion from under -50°F to 265°F. HybridCrete SLBF withstands continuous hot water wash downs.
- **Impact Resistance** – while epoxy and vinyl esters can crack and spall, HybridCrete SLBF will absorb an impact and distribute the force throughout the system.
- **Downtime** – no primers or sealers are required due to the resin-rich properties. Fast curing in less than 6 hours.
- **Non-Slip** – the surface can be customized to any facilities requirements – from decorative self-leveling to aluminum-oxide solid broadcast.

- **Odorless Materials** – no tainting of food products due to freedom from objectionable odors during application.
- **Thermal Comfort** – HybridCrete SLBF provides superior insulation over concrete or other plastic flooring systems.
- **Hygiene** – HybridCrete SLBF eliminates tile joints, minimizes cracking as occurs in traditional monolithic flooring, and reduces potential bacteria growth.
- **Hydrostatic Pressure** – HybridCrete SLBF will withstand up to 14 lbs. of vapor transmission in the slab without delamination. It also allows the concrete to breathe and is a solution for many moisture problems.
- **Antimicrobial** – contains silver-ion based antimicrobial.

Chemical Resistance

HybridCrete SLBF flooring systems resist spills and in many cases immersion of:

<u>Acid</u>	<u>Alkali</u>
Hydrochloric	KOH
Phosphoric	Ammonium Chloride
Sulfuric	Sodium Hydroxide

Also resists hot fatty oils, diesel fuel, and organic solvents (MEK, Acetone, Toluene)

Note: Full chemical resistance chart available upon request

Areas of Application

- Food & Beverage (FDA/USDA Accepted)
- Bakery
- Food Processing
- Dairy
- Meat Processing
- Soda & Juice Facilities
- Brewery
- Prepared Foods
- Commercial Kitchens
- Chemical Processing
- Animal Rooms
- Secondary Containment
- Pharmaceutical
- Pulp & Paper

Surface Preparation

The success or failure of any flooring system is highly dependent upon the proper preparation of the substrate. Plexi-Chemie Inc. recommends using a mechanical means method which will achieve a profile of at least CSP 3 as described by the international concrete repair institute. Captive shot blasting is the preferred means of achieving the acceptable profile by abrading the concrete and diamond grinding the substrate so as to remove all latent materials that impede adhesion.

Application

1. Prepare substrate properly in accordance with instructions above.
2. Install optional cove base as required.
3. Install the PlexiCrete base system.
4. Broadcast PlexiCrete SLBF aggregate evenly to excess, by hand or by mechanical blower, into the wet receiving coat of PlexiCrete urethane making sure the entire floor is covered to saturation with aggregate.
5. Allow curing and thoroughly vacuum off the excess unbound aggregate.
6. Apply 1/8 inch PlexiFlake Epoxy Flooring System using the PlexiGlaze #4 resin hardener.
7. Allow curing and thoroughly vacuum off the excess unbound aggregate.

8. Apply two clear finish coats of the polyaspartic PlexiCrest XP. Additional finish coats may be applied depending upon smoothness of surface desired and/or chemical resistance required.

Cleaning and Maintenance

Do not expose PlexiFlake system to any chemicals until the full curing time of 7 days has passed. Regular cleaning and maintenance will prolong the life of all polymer-flooring systems, enhance appearance and reduce any tendency to retain dirt.

Safety

Safe storage, handling, and use dictate that adequate health and safety precautions are observed with this product. User is specifically directed to consult the current Safety Data Sheet for this product as well as precautions contained on product labeling.

Colors

HybridCrete SLBF is available in following colors:

Solid Colors

Tile Red
Granada Grey
Desert Brown
Sky Blue
Other Pastels

Flake Colors

Full palate of flake from Plexi-Chemie. Color chart is available on our website.

Typical Physical Properties

Compressive Strength	ASTM C-579	9,200 psi
Tensile Strength	ASTM C-307	7,000 psi
Coefficient of Thermal Expansion	ASTM C-531	1.5×10^{-5} °F
Coefficient of Friction	ASTM D-2047	.73 dry .65 wet
Elongation	ASTM D-412	30 – 50%
Density	ASTM C-905	130 lb./ft.
Resistance to Fungi Growth	ASTM G-21	passes, rating of one
Impact Resistance	ASTM D-2794	no visible damage or deterioration at min 160 inch-pounds
Flexural Strength	ASTM C-580	3,505 psi
Flexibility 1/8 th inch Mandrel	ASTM D-412	Pass
Modulus of Elasticity	ASTM C-469	1.7×10^5 psi
Thermal Conductivity	ASTM C-177	6.8 BTU-in/hr-ft ² -deg °F
Water Absorption	ASTM C-413	<0.1%
Abrasion Resistance	ASTM D-4060 @ 1000 cycles	.26 grams loss
Resistance to Elevated Temperatures	MIL-D-3134	no flowing or softening
Adhesion	ASTM D-4541	500 psi 100% concrete failure, exceeds concrete
Flammability	ASTM D-635	Self-extinguishing
Hardness	ASTM D Shore D-2240	80
Solids by Volume		100%