

BIOCEM HF

HD SEAMLESS URETHANE CEMENT SYSTEM

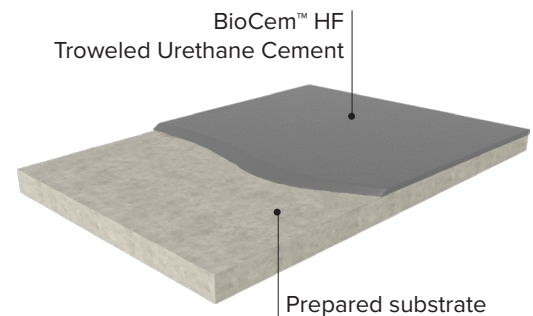
BIO-CEM™ HF is a trowel applied polyurethane concrete designed for heavy duty applications. HF is installed at a thickness of 1/4" to 1/2". This ultra heavy duty polyurethane concrete is designed for the most demanding environments experiencing significant levels of thermal shock, impact and chemical attack. Bio-Cem™ HF is resistant to fungi growth as per ASTM Standard G-21. It is nationally VOC compliant and low in installation odor. It is designed as a single coat; self-sealing application and is best suited for environments requiring a high-degree of protection. . HF is compliant with the California Department of Public Health standard method V1.2 and is eligible for LEED credits as per USGBC LEED Version 4/4.1.

Applications

- Breweries
- Food Manufacturing
- Packing facilities
- Bottling plants
- Chemical processing

Features:

- Resistant to MVER
- Withstands high thermal shock & Impact
- Low odor & minimal voc
- Superior abrasion resistance & traction
- Seamless with Integrated cove base



Colors & Finishes

Available in standard Resinwerks urethane cement colors with custom colors available upon request. Please contact Resinwerks directly for a color selection chart. BioCem HF will leave a matte finish once cured and the final finish will be slightly textured. Please coordinate sample requests with your Resinwerks representative.

System Components

1. **Single-Coat:** BioCem™ HF Urethane Cement is applied at 1/4" to 1/2". Kit components include .5-gallon of part A, .5-gallon of part B and One 52-lb. filler. Pigment may be added at a rate of 1 pigment pack per kit. HF™ is engineered to be a single coat, self-sealing application.
2. In some cases, kiln-dried sand may be broadcast into HF for added texture.

GENERAL SYSTEM PERFORMANCE - SC-100

TEST TYPE		RESULT
Compressive Strength	ASTMC 695	7,800 PSI
Water Absorption	ASTMD 570	< .1%
Adhesion Pull-Off	ASTMD-4541	+500 PSI concrete fracture
Elongation / Tensile	ASTMD 307	3100 psi
Flexural Strength	ASTMC 580	2700 psi
Flexibility 1/4" cylindrical mandrel	ASTMD 522I	Pass
Static COF	ANSI B101.1	>0.6
Dynamic COF - Wet	ANSI A326.3	>0.42
Impact Resistance	ASTMD 4060	> 160 Inch/Lb
Service Temp		-50°F to 200°F

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.

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 4-5. 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. Consult Resinwerks directly for slabs exhibiting elevated MVER.



DE-GREASING OF CONTAMINATED SUBSTRATES

For concrete substrates containing oil, animal fats, 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. Single-Coat: BioCem™ MonoFloor

- **Mixing:** Prior to mixing, all products should be properly acclimated to the local ambient room temperature of 40°F(4.4°C) - 85°F(29.4°C)
- It is very important to use a proper electric forced circulation mixing pail and paddle. Avoid the incorporation of excessive air into the mix.
- Pour 1/2-gal A into a forced circulation mixing pail and add pigment. Mix for 15-seconds.
- Add 1/2-gallon Part B and mix for an additional 15-seconds
- Slowly add entire contents of 52 lb bag of HF bag filler to mix. Take special care not to introduce air or create a vortex. Mix for approximately 2-3 minutes until materials are properly wetted out.
- **Application:** Immediately following mixing, lightly spread material with a steel trowel or screed box at minimum 1/4" thickness, taking care not to overwork the mortar. It is a good idea for all finish trowel strokes to be in the same direction.
- For thicker applications, add dry 3/8" pea gravel to the mixture to help reduce heat generated with the mix.
- Immediately back-roll the surface with a 3/8" nap roller to eliminate trowel marks and bring the resin to the surface.
- Lay all abutting edges within 10-minutes to ensure uniform transition.
- If desired, surface may be broadcast with kiln-dried sand for added texture.

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.

