

FloroBuild Epoxy Mortar Troweled Overlay

Product Description: FloroBuild is used for resurfacing or leveling deteriorated or spalled concrete floors. Economically adding performance and durability, this system provides a sanitary, skid-resistant surface that easily tolerates the harsh environments found in factory settings. FloroBuild can be applied using a hand-trowel or power-trowel.

Typical Uses, Applications: Ideal for commercial, industrial and institutional applications, such as:

- Manufacturing plants
- Warehouses and logistics operations
- Detention and public safety buildings
- Hospitals, clinics
- Food processing plants
- Schools and universities
- Aviation and transportation facilities
- Hospitality and restaurants
- Grocery stores and retail establishments

Product Advantages:

- Repairs and resurfaces damaged concrete
- Outstanding compressive strength
- Excellent impact resistance
- Heavy duty and very durable
- USDA, FDA, EPA, OSHA and ADA compliant
- Can contribute to LEED Green Building Credits
- Tintable with Florock Colorants

Packaging:

- FloroPoxy 47 Series Primer –
 - 4 Gal OverPack
 - 20 Gal Pail Set
 - 220 Gal Drum Set
- FloroBuild Trowel Matrix Binder: FloroPoxy 4700 or FloroPoxy 4755 –
 - 20 Gal Pail Set
 - 220 Gal Drum Set
- FloroBuild Trowel Matrix Aggregate –
 - PT - 50 lb Bags
- FloroBuild Grout Coat: FloroPoxy 4805 or 4865 –
 - 4 Gal OverPack
 - 20 Gal Pail Set
 - 220 Gal Drum Set
- Optional High Performance Topcoat –
 - Choice of finishes available; consult Florock Representative for best options

Cured Physical Properties		
Property	Test Method	Results
Compressive Strength	ASTM C-579	11,600 psi
Tensile Strength	ASTM C-307	2,000 psi
Flexural Strength	ASTM C-580	5,100 psi
Flexural Modulus of Elasticity	ASTM C-580	2.0x10E6 psi
Indentation	MIL-D-3134F	No Indent.
Impact Resistance	ASTM D-2794	>160 in/lbs
Shore D Hardness	ASTM D-2240	90
Water Absorption	ASTM C-413	0.2%
Bond Strength	ACI Comm. #503	>400 psi
Abrasion Resistance CS-17 Wheel, 1,000 gm load, 1,000 cycles	ASTM D-4060	38 mg
Heat Resistance Limitation	Continuous Intermittent	140°F/60°C 200°F/93°C
Coefficient of Friction	ASTM F-1679 ASTM F-2508	0.84 (dry) 0.68 (wet)
Flammability	ASTM D-648	Class I
Thermal Coefficient of Linear Expansion	ASTM C-531	2.0x10-5 in/in/°C

Note: FloroPoxy 47 Series ambers when exposed to sunlight and is not for use as topcoat.

Note: For acid resistant FloroBuild, substitute FloroPoxy Novolac for the grout coat. If acid resistant properties are required throughout matrix, then substitute Novolac for matrix binder as well.

Storage: All containers should be stored at 40° F to 95°F, be kept tightly sealed and out of direct sunlight.

Coverage: Properly prepared floors will typically consume 10 to 16 mils of primer depending on the porosity of the surface. The spread ratio will be 100 SF/gal. for 16 mils. The spread ratio will be 160 SF/gal. for 10 mils.

Note: FloroPoxy should not be applied when floor temperature is above 90°F or below 55°F, or when within 5°F of the dew point.

Coverage:

- Primer
 - FloPoxy 47 Series: 160 SF/Gallon
- Trowel Matrix
 - Using Hand Trowel: 1 Gal. FloBuild Binder FloPoxy 4700 or 4755 with 65 pounds FloBuild PT aggregate (1-131BG) covers 32 SF at 1/4 inch thickness
 - Using Power Trowel: 3 Gals. FloBuild Binder FloPoxy 4700 or 4755 with 200 pounds FloBuild PT aggregate (1-131BG) covers 130 SF at 3/16 inch thickness
- Grout Coat(s)*
 - FloPoxy 4805 or 4865: One to two grout coats as needed, 100 SF/Gallon for 16 mils; 200 SF/Gallon for 8 mils
- Optional Finish Coats(s)
 - Please Consult your Florock Representative to select the optimal Florock High Performance Topcoat and slip-resistant aggregate.

**Other FloPoxy Grout Coat products are available. See your Florock Specialist for details.*

Surface Preparation: New concrete must have a 28 day cure, and preferably a broom swept finish, prior to coating. In the case of older concrete flooring, remove all surface oils, paint, dust and debris. Prior to coating, make sure the surface is clean, passes the MVT test and the water drop test and that all surface defects have been repaired. Refer to the Florock "Preparation of Concrete" datasheet for more information on preparation and MVT before proceeding.

Primer Application: Once surface preparation is complete, apply FloPoxy 47-Series primer to the concrete floor. In a clean, dry container, blend 3 parts by volume of component A and 1 part by volume of component B. Mix thoroughly for 3 to 5 minutes, using a low speed mechanical mixer. Transfer the mixture from the batch container to a transport container, remix and pour entire mix from the transport container onto floor immediately. Retaining mixture in the bucket will shorten pot life. Using a 1/8" V-notched squeegee, spread at an approximate rate of 160 SF/gallon and then backroll with a 3/8" nap roller immediately after spreading, taking care to not leave puddles. The matrix may be applied to the wet primer. If allowing primer to cure before application of the matrix, broadcast a heavy seed.

Note: Cure times vary with conditions. Allow a minimum of 4 hours and a maximum of 24 hours before next step.

Liquid Physical Properties FloBuild Binder FloPoxy 4700 & 4755			
Property	Test Method	Part A	Part B
Viscosity	ASTM D2196	1000 cps	73 cps
Flash Point	ASTM D3278	>200° F	>200°F
Wt./Gallon	ASTM D1475	9.30 lbs.	8.10 lbs.
N.V.W.	ASTM D2369	100%	100%
FloBuild Blended Components FloPoxy 4700 & 4755 with Aggregate Blend			
Blending Ratio		3:1 by Volume	
Blended Solids		100%	
Pot Life, with aggregate*		4700	55 Minutes
		4755	115 Minutes
Pot Life, neat*		4700	18 Minutes
		4755	21 Minutes
Dry and Cure Times at 70°F**			
Set-to-Touch		4700	4-6 Hours
		4755	6-8 Hours
Minimum Recoat		6-12 Hours	
Maximum Recoat		24 Hours	
Foot Traffic		12 Hours	
Floor and Air Temperature Limitations**		55°F – 90°F	
Blended Viscosity, Resin Only		400 (+/- 100) cps	
Recommended Clean-Up Solvent		Xylene	
V.O.C. ASTM D-2369, Method E		0 gpl	

**Pot Life will be shorter with warmer slab, material temperatures.
**Cooler temperatures require longer cure time. Film thickness affects cure time.*

FloBuild may be installed using either a hand trowel or a power trowel. Select the appropriate instruction below.

Hand Trowel Matrix Coat: In a clean, dry, portable cement mixer with forced action motor, combine the components of the FloBuild binder resin, FloPoxy 4700 or 4755: 3 quarts of Part A with 1 quart of Part B. Mix well. Then add 65 pounds of FloBuild PT Aggregate (P/N 1-131BG). Mix well, immediately transfer mixture onto floor and screed into place. Calculate 32 SF at 1/4" compressed thickness for each mix. Finish with a cement trowel.

Note: If pigmenting the Trowel Matrix, add colorant to the liquids before mixing with the aggregate.

Power Trowel Matrix Coat: In a clean, dry cement mixer with forced action motor, combine the components of the FloroBuild binder resin, FloroPoxy 4700 or 4755: 9 quarts of Part A with 3 quarts Part (3 gallons in total). Then add 200 pounds of FloroBuild PT Aggregate (P/N 1-131BG). 131BG. Mix well, immediately transfer mixture onto floor and screed into place. Calculate 130 SF at 3/16" compressed thickness for each mix. Proceed in accordance with trowel machine manufacturer's instructions.

Note: If pigmenting the Trowel Matrix, add colorant to the liquids before mixing with the aggregate.

3. Apply Grout Coat(s): After matrix has cured to the point of supporting foot traffic (approximately 4 to 8 hours), grind or stone floor to remove any high spots. Combine Parts A and B of the first grout coat, FloroPoxy 4865, at a 3:1 ratio in accordance with product technical data sheet. Mix well for 3-5 minutes, using a low speed mechanical mixer. With a flat squeegee, apply the grout coat of FloroPoxy 4865 at a rate of 160 SF/gallon. A backroll is typically not necessary on the first grout coat so long as care is taken during the squeegee application. However, if a backroll is needed, use a 3/8" nap roller, taking care to not overwork the coating. Once the first grout coat is cured, a second grout coat may be applied using FloroPoxy 4805. Combine Parts A and B at a 3:1 ratio in accordance with product technical data sheet. Mix well for 3-5 minutes, using a low speed mechanical mixer. Then apply the second grout coat using a rate of 160 SF/gallon, using a 3/8" nap roller, again taking to not overwork the coating.

Optional Finish Coat: Apply optional finish topcoat within the grout coat recoat window. Follow technical data instructions for installation.

Installation over Existing Coatings:

Examine the existing coating to ensure that it is well bonded to the concrete. Any loose coating must be completely removed and edges should be sanded and feathered. Clean the entire floor thoroughly with a detergent cleaner. The surface must be free of all dirt, oils, or other contaminants. After the floor has completely dried, sand the existing coating until a powdery residue is evident and all gloss is removed. Sweep or vacuum clean, and wipe with xylene to ensure good adhesion of the new system. Any bare concrete should be mechanically prepared and primed with FloroPoxy 47-Series.

Maintenance: Sweep away dust and debris with a broom. Clean on a regular basis with a surfactant type mild detergent. Florock floors never need to be waxed.

Please read Safety Data Sheets before using products.

DISCLAIMER:

All statements and recommendations above are based on experience we believe to be reliable. The use or application of these products being beyond the control of the Seller or Manufacturer, neither Seller nor Manufacturer make any warranty, expressed or implied, as to results or hazard from its use. The suitability, risk and liability of a product for an intended use shall be solely up to the User.

