

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 is available in both a hand trowel and power trowel version.

Typical Uses: Commercial, Industrial and Institutional applications, such as:

- Heavy Industry
- Foundries
- Breweries
- Loading Docks
- Bottling Plants
- Wastewater Treatment Facilities

Product Advantages:

- Seamless sanitary floor and coving
- Meets USDA requirements for incidental food contact in federally-inspected meat and poultry plants
- Excellent impact resistance and hardness
- A variety of colors can be achieved with the addition of Florock 100% Solids Colorants

Packaging:

- Floropoxy 47-Series Primer –
 - 4 Gal OverPack
 - 20 Gal Pail Set
 - 220 Gal Drum Set
- FloroBuild Binder Resin 4750 or 4755 –
 - 20 Gal Pail Set
 - 220 Gal Drum Set
- FloroBuild Aggregate –
 - HT - 65 lb Bags
 - PT - 50 lb Bags

Cured Physical Properties		
Property	Test Method	4750/4755 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 Pg. 1139-41	>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 Or 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

- Floropoxy 4805 or 4860/4865 Grout –
 - 4 Gal OverPack
 - 20 Gal Pail Set
 - 220 Gal Drum Set

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

Coverage:

Primer

- Floropoxy 47-Series: 160 ft²/Gallon

Hand Trowel Matrix Coat

- 1 Gal FloroBuild Binder 4750 or 4755 with 65 lbs FloroBuild HT aggregate (part number 1-85BG) will cover 32 ft² @ 1/4" depth

Power Trowel Matrix Coat

- 3 Gal FloroBuild Binder 4750 or 4755 with 200 lbs of FloroBuild PT aggregates (part number 1-131BG) covers 130 ft² @ 3/16" depth

Grout Coat(s)

- Floropoxy 4805, 4860 O.P. or 4865 O.P. @ 100 to 200 ft²/Gal

Optional Finish Coats(s)

- Consult your Florock Rep to choose the correct Florock High Performance Top Coat.

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" data sheet for more information on preparation and MVT before proceeding.

Application over Smooth, Bare Concrete

Note: There are three choices of primer resin; System 4700, 4750 and 4755. System 4700 and 4750 will provide the fastest cure time whereas System 4755 will remain tacky for an extended period.

1. Primer Application: Once surface preparation is complete, apply Floropoxy 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 ft²/gallon and then backroll with a 3/8" nap roller immediately after spreading, taking care not to 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.

2. FloroBuild 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, blend FloroBuild binder resin 4750 or 4755 well. Mix 3 quarts of component A with 1 quart of component B then add 65 lbs of FloroBuild aggregate blend part number 1-85BG. Mix well and immediately transfer mix onto floor, then screed into place, figuring 32 ft² at 1/4" depth for each mix, and finish with cement trowel.

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

Liquid Physical Properties			
Property	ASTM Test Method	Part A	Part B
Viscosity	D-2196	1000 cps	73 cps
Flash Pt.	D-3278	>200° F	>200°F
Wt./Gal.	D-1475	9.30 lbs.	8.10 lbs.
N.V.W.	D-2369	100%	100%

FloroBuild Blended Components Floropoxy 4750 & 4755 with Aggregate Blend	
Blending Ratio	3:1 by Volume
Blended Solids	100%
Pot Life, 15 lb Mass*	4750 55 Minutes 4755 115 Minutes
Cure Time @ 70°F**	
Set-to-Touch	4750 4-6 Hours 4755 6-8 Hours
Minimum Recoat	6 – 12 Hours
Maximum Recoat	24 Hours
Foot Traffic	12 Hours
Floor & Air Temp Limitations***	55 – 90 ° F
Resin Only, Blended Viscosity	400 (+/- 100) cps
Recommended Clean-Up Solvent	S-41 Florobase Thinner
V.O.C.ASTM D-2369, Method E	0 g/l

* Pot life varies, depending upon mass and storage temperature of materials.

** Cooler temperatures require longer dry time. Film thickness affects dry time.

*** Important: Floropoxy and FloroBuild should not be applied when floor temperature is above 90°F or below 55°F, or when within 5°F of the dew point.

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Power Trowel Matrix Coat: In a clean, dry cement mixer with forced action motor, blend FloroBuild binder resin 4750 or 4755 well. Mix 9 quarts component A with 3 quarts component B (3:1 by volume, total 3 gallons). Then add 200 pounds of FloroBuild aggregate blend part number 1-131BG. Mix well, immediately transfer mix onto floor and then screed into place, figuring 130ft² at 3/16" depth 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 aggregates.

Note: For acid resistant FloroBuild, substitute Florock Novolac for the standard grout coat (Step 3). If acid resistant properties are required throughout matrix, then substitute Novolac for binder (Step 2) as well.

3. Apply Grout Coat: 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. Blend grout coat well, using a low speed mechanical mixer for 3 to 5 minutes. With a flat squeegee, apply the grout coat of Floropoxy 4860 or 4865 at a rate of 160 ft²/gallon. A backroll is not necessary on the first grout coat if care is taken during the squeegee application; however if a backroll is needed, use a 3/8" nap roller taking care not to over roll the coating. When the first grout coat is cured, apply the second grout coat using Floropoxy 4805 at a rate of 160 ft²/gallon, use a 3/8" nap roller taking care not to over roll the coating. Apply optional finish top coat within recoat window.

Note: One grout coat may be sufficient if a tight matrix is achieved.

Note: Other Floropoxy systems may be used for grout coats. Consult your Florock Representative for optional grout coats and coverage rates.

Note: Consult your Florock Representative for which grout coat is best for your application.

Installation over Existing Coatings:

1. 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 to a feathered edge.

2. Clean the entire floor thoroughly with the detergent cleaner. The surface must be free of all dirt, oils, or other contaminants.

3. 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 Florobase thinner 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 Material Safety Data before using product.

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