

## 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 4700 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
- Floropoxy 4805 or 4860 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.

Cured Physical Properties			
Property	Test Method	4750 Results	4755 Results
Compressive Strength	ASTM C-579	10,000 PSI	11,600 PSI
Tensile Strength	ASTM D-2370	7,300 PSI	7,300 PSI
Flexural Strength	ASTM C-580	4,300 PSI	5,100 PSI
Flexural Modulus of Elasticity	ASTM C-580	2.0x10E6 PSI	2.0x10E6 PSI
Indentation	MIL-D-3134F	No Indent.	No Indent.
Impact Resistance	ASTM D-4226	>160 in/lbs	>160 in/lbs
Shore Hardness	ASTM D-2240	90	90
Water Absorption	ASTM C-413	0.2%	0.2%
Bond Strength	ACI Comm. #503 Pg. 1139-41	>400 PSI	>400 PSI
Abrasion Resistance CS-7 Wheel, 1,000 gm load, 1,000 cycles	ASTM D-4060	38 mg	38 mg
Heat Resistance Limitation	Continuous Exposure	140°F / 60°C	200°F / 93°C
Coefficient of Friction	ASTM D-2047	0.6	0.6
Flammability	ASTM D-635	Self-Extinguishing	Self-Extinguishing
Thermal Coefficient of Linear Expansion	ASTM C-531	1.8 x 10-5 in/in/°C	2.0x10-5 in/in/°C

**Coverage:**

**Primer**

- Floropoxy 4700: 160 SF/Gallon

**Hand Trowel Matrix Coat**

- 1 Gal FloroBuild Binder 4750 or 4755 with 65 lbs FloroBuild HT Aggregate Part Number I-85BG will cover 32 SF at ¼” depth

**Power Trowel Matrix Coat**

- 3 Gal FloroBuild Binder 4750 or 4755 with 100 lbs *each* of FloroBuild PT Aggregates Part Number 1-122BG & Part Number 1-125BG (200 lbs. total) covers 130 SF at 3/16” depth

**Grout Coat(s)**

- Floropoxy 4805 or Floropoxy 4860 O.P. at 100 to 200 SF/Gal

**Optional Finish Coats(s)**

- Florothane CR: 310 SF/Gallon

**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 two choices of primer resin; System 4700, and System 4755. System 4700 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 4700 or 4755 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 3-5 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. Backroll with a 3/8” nap roller immediately after spreading. Allow primer to cure before applying the basecoat.

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%

*Note: There are two choices for binder resin: System 4750 and System 4755. System 4750 will provide the fastest cure time whereas System 4755 will provide the maximum working time.*

FloroBuild Blended Components Floropoxy 4750 & 4755 with Aggregate Blend	
Blending Ratio	3:1 by Volume
Blended Solids	100%
Pot Life, 15 lb Mass*	24 Minutes
<b>Cure Time @ 70°F**</b>	
Set-to-Touch	6 Hours
Minimum Recoat	10 – 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.	0

*\* 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.*

## FloroBuild Epoxy Mortar Troweled Overlay

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. Screed into place, figuring 32 SF at ¼" depth for each mix, and finish with cement

**Power Trowel Matrix Coat:** In a clean, dry cement mixer with forced action motor, blend FloroBuild Binder Resin 4750 or 4755 well. Mix 6 quarts Component A with 3 quarts Component B (3:1 by volume, total 3 gallons). Then add 100 pounds *each* of FloroBuild Aggregate Blends Part Number 1-122BG and Part Number 1-125BG (total 200 pounds.). Mix well and immediately transfer mix onto floor. Screed into place, figuring 130 SF at 3/16" depth for each mix. Proceed in accordance with trowel machine manufacturer's instructions.

*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 6 - 8 hours). Grind or stone floor to remove any high spots. Prepare Grout Coat by premixing before installation. (Floropoxy 4805 is sufficient if a tight matrix has been achieved with Florock HT FloroBuild Aggregate. If using other aggregate, Floropoxy 4860 or 4865 Stipple Gel should be used.) Blend well, using a low speed mechanical mixer for 3-5 minutes. With a flat squeegee, apply grout coat at a rate of 100 SF/gallon, backrolling with a 3/8" nap roller. One or two coats of

Floropoxy 4805 are recommended. One grout coat of Floropoxy 4860 or 4865 is sufficient. Apply optional finish coats within recoat windows. Allow 12 - 24 hours cure time before applying the second coat of Floropoxy 4805.

### 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. 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 4700.

### 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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