

FloroBuild System 4750 Hand & Power Trowellable Epoxy Mortar 4.75-6.25mm

Product Description:

FloroBuild System 4750 is a 3-component, 100% solids, trowelled mortar system used for resurfacing or levelling deteriorated or spalled concrete floors. Once cured, FloroBuild provides enhanced impact, wear and abrasion resistance, economically adding performance and durability. This system provides a sanitary, slip-resistant surface that easily tolerates the harsh environments found in factory settings.

Typical Uses:

Commercial, Industrial and Institutional applications, such as:

- Heavy Industry
- Foundries
- Breweries
- Aviation facilities
- Bottling plants
- Wastewater treatment facilities

Product Advantages:

- Seamless sanitary floor and coving
- Excellent impact resistance and hardness
- High compressive strength
- Enhanced abrasion resistance
- A variety of colours can be achieved with the addition of Florock 100% Solids Colourants

Packaging:

Each unit of FloroBuild System 4750 consists of:
2 x 4.26 ltr Part A Binder Resin in white buckets
2 x 1.42 ltr Part B Activator in white buckets
Mix ratio 3:1 by volume

6 x 15.1 kg bags of FloroBuild Aggregate Part C

When a coloured mortar is required, blend:
2 x 225ml pots of Florock 100% solids colourant with the above liquids prior to adding the aggregate

Cured Physical Properties

Property	Test Method	Results
Compressive Strength	ASTM C-579	80 N/mm ²
Tensile Strength	ASTM C-307	14 N/mm ²
Flexural Strength	ASTM C-580	35 N/mm ²
Flexural Modulus of Elasticity	ASTM C-580	13,800 N/mm ²
Indentation	MIL-D-4226	No Indent.
Impact Resistance	ASTM D-2794	>1800 mm/kg
Shore D Hardness	ASTM D-2240	90
Water Absorption	ASTM C-413	0.2%
Bond Strength	ASTM D 454	>3 N/mm ² (concrete failure)
Abrasion Resistance CS-17 Wheel, 1,000 gm load, 1,000 cycles	ASTM D-4060	38 mg
Heat Resistance Limitation	Continuous Intermittent	60°C 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	21.5x10 ⁻² mm/mm/°C

FloroBuild 4750 mini kits are available for small areas of around 3m² to 4m². Details on request.

Storage:

All containers should be stored between 16°C to 30°C in a dry area and be kept tightly sealed and out of direct sunlight.

Coverage:

FloroBuild epoxy mortar – 6.25mm option:

Apply 1 unit by hand or power trowel @ 9m²/unit

FloroBuild epoxy mortar – 4.75mm option:

Apply 1 unit by hand or power trowel @ 12m²/unit

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 Moisture Vapour Transmission (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:

Apply Floropoxy System 4700 epoxy primer. See technical data sheet for further information

In a clean, dry container, blend 3 parts by volume of Resin Part A with 1 part by volume of Activator Part 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 the pot life. Using a flat or 3mm notched squeegee, apply at desired thickness. Backroll with a 10mm nap roller.

Note: The cure time will vary with conditions. Allow a minimum of 4 hours and a maximum of 24 hours before next step.

FloroBuild Epoxy Mortar:

In a clean, dry portable mixer with forced action motor, blend the two buckets of Part A Binder Resin System 4750 with the two buckets of Part B Activator and mix well for 1 minute. Add 6 x 15.1 kg bags of FloroBuild aggregate Part C and mix well for a further minute. Immediately transfer mortar onto floor, then screed into place compacting well @ 4.75mm or 6.25mm depending on service conditions

Note: If pigmenting the mortar matrix, add the two pots of colourant to the liquids before mixing with the aggregates.

Liquid Physical Properties Floropoxy System 4750			
Property	ASTM Test Method	Part A	Part B
Viscosity	D-2196	1000 cps	73 cps
Flash Pt.	D-3278	>93° C	>93°C
Wt./ltr.	D-1475	1.10 kg	0.97 kg
N.V.W.	D-2369	100%	100%

Note: For information on an acid resistant FloroBuild mortar matrix, contact your Florock Technical Representative.

Grout/Finish Coat:

After mortar matrix has cured to the point of supporting foot traffic (approximately 4 to 8 hours) grind or stone floor to remove any high spots. Apply Floropoxy System 4805 grout/finish coat. In a clean, dry container, blend 3 parts by volume of Resin Part A with 1 part by volume of Activator Part 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 contents from transport container onto the floor immediately. Using a flat or notched squeegee, apply at 3.8m²/ltr @ 250µ dft. Backroll with a 10mm nap roller taking care not to over roll the coating..

Note: One grout coat may be sufficient if a tight matrix is achieved. Other Floropoxy systems may be used for grout coats. Consult your Florock Representative for optional grout coats and coverage rates.

Optional Finish Topcoats:

To enhance FloroBuild System 4750's abrasion, chemical, impact and slip resistance characteristics, a range of high performance topcoats are available. Apply optional finish top coat within recoat window.

Please consult your Florock Technical Representative for further information.

Colours

Florobuild System 4750 is available in 12 standard shades. Please refer to colour sheet.

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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.

Disclaimer

All statements and recommendations are based on experience we believe to be reliable. The use or the 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

FloroBuild Blended Components Floropoxy 4750 A&B with Aggregate Part C	
Blending Ratio	3:1 by Volume
Blended Solids	100%
Pot Life, with aggregate*	55 Minutes
Pot Life, neat	18 Minutes
Cure Time @ 21°C**	
Set-to-Touch	4-6 Hours
Minimum Recoat	6 – 12 Hours
Maximum Recoat	24 Hours
Foot Traffic	12 Hours
Floor & Air Temp Limitations***	13 – 32 ° C
Resin Only, Blended Viscosity	400 (+/- 100) cps
Recommended Clean-Up Agent	S-41 Florobase solvent
V.O.C.ASTM D-2369, Method E	0 gm/ltr

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

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

*** Important: Floropoxy and FloroBuild should not be applied when floor temperature is above 32°C or below 13°C, or when within 3°C of the dew point.