

PERMAGROUT E FS

Extra Cold Temperature Construction Material

DESCRIPTION

PERMAGROUT E FS is a 100% solids, non-shrink, high strength epoxy construction material that is easily mixed for grouting at almost any consistency. When filled and mixed according to instructions, high physical properties are achieved, making PERMAGROUT E FS ideal for concrete repair prior to re-topping with another PERMATEC floor coating.

FUNCTION

PERMAGROUT E FS is recommended for restoring damaged concrete floors, sumps, trenches, tank pedestals or sloping floors to drains. PERMAGROUT E FS is ideal as a grouting for the frames and baseplates of pumps, gear boxes, electric motors, anchor bolts, etc.

FEATURES

PERMAGROUT E FS comes in pre-packaged units ready for use. It compensates for shrinkage in both the plastic and hardened states, and the fast cure cycle allows for minimal downtime and a quick repair. PERMAGROUT E FS possesses the same tenacious bonding characteristics and high physical properties as the PERMATEC floor toppings, making it excellent for substrate repair prior to re-topping with a PERMATEC floor. PERMAGROUT E FS has good chemical resistance for alkalines, salts and mild acids.

TYPICAL PROPERTIES

Solids, by Volume	100 %
Flexural Strength ASTM D790	3,850 psi
Tensile Strength ASTM D307	1,700 psi
Bond Strength to Concrete ASTM D4541	Failure in concrete

Water Absorption	0.10% Max
Compressive Strength ASTM C579	10,000 psi

PACKAGING AND COVERAGE

PERMAGROUT E FS 1/2 CF kits are packaged in pre-measured 110 lb units consisting of:

Component	Lbs	Container
1) PERMAGROUT E FS Epoxy Resin		1 gallon bucket
2) PERMAGROUT E FS Hardener		1 quart bottle
3) Blended Silica	50	Loose
4) 1/8-1/4 inch Pea Gravel	50	Separate bag

NOTE: Components 1, 2 and 3 above are contained within a 5 gallon bucket, which can also be used for mixing PERMAGROUT E FS. There is more silica and pea gravel supplied than will normally be used for any substrate repair operation. The following table supplies basic starting points for silica and pea gravel blends. These amounts can be varied slightly to provide different degrees of workability.

Avg depth of Pour (Inches)	Amt of Pea Gravel & Silica (Lbs.)	Coverage SF/CF
1/4	20-25 Silica 15 Silica Broadcast	20/.42
1/2	15 Silica 15 Pea Gravel 10 Silica Broadcast	12/.45
1	40 Silica 30 Pea Gravel 5 Silica Broadcast	6/.65
3	35 Silica 40 Pea Gravel	3/.65

To maintain physical integrity, it is not recommended to exceed a 7.5/1 aggregate to resin ratio by weight.

PERMAGROUT E FS is also packaged in 20 gallon and 60 gallon units without the aggregate.

MIXING

Prior to application, the PERMAGROUT E FS (Resin, Hardener, Pea Gravel and Silica) and the substrate should be between 65 degrees F and 90 degrees F.

A 5 gallon bucket mixer that provides a side and bottom scraping action is recommended for PERMAGROUT E FS. It is advisable to mix the Resin (Part A) and the Hardener (Part B) together for 1 minute prior to the addition of silica or pea gravel. Add the desired amount of silica and pea gravel based on the pour thickness required and mix for another 60 seconds or until the aggregate is thoroughly wet, and pour immediately on the floor.

NOTE: The aggregate must be dry before mixing. If the aggregate packs together when squeezed, it is wet and should not be used.

APPLICATION

Depending on the pour thickness, screed raking or hand troweling will be required to achieve the desired placement. Within 10-15 minutes after the PERMAGROUT E FS has been applied, silica should be broadcast on the surface until it is saturated and the excess removed after the material has set. This step produces a mechanical bonding mechanism that will enhance the bond of the final floor topping to the PERMAGROUT E FS.

CLEAN-UP

All mixing and application equipment should be cleaned immediately after use. If this is done, soap and water or biodegradable cleaners can be used. If the material has begun to set, more aggressive solvents will be necessary. Before using solvents, refer to their respective SDS for handling considerations.

USE TIME

Assuming a 1-inch fill, the PERMAGROUT E FS will be ready to coat in 3-4 hours with a substrate and ambient temperature of at least 75 degrees F.

NOTE: The thicker the fill, the faster the material will set up. It is advisable to apply the final topping (PERMATEC 3000, 4000, 5000, etc.) within 24 hours of the application of the PERMAGROUT E FS.

STORAGE and SHELF LIFE

PERMAGROUT E FS should be stored at 50-90 degrees F in a dry area out of direct sunlight. All containers should remain unopened until ready for use. If stored as set out above, PERMAGROUT E FS has a minimum shelf life of one year.

WHERE PERMAGROUT E FS SHOULD NOT BE INSTALLED

PERMAGROUT E FS should not be applied over substrates:

- subject to hydrostatic pressure
- which are unsound
- which are contaminated and cannot be cleaned
- at temperatures below 65 degrees F (Consult ChemProof Polymers)

SAFETY

Read Safety Data Sheets ("SDS") before using. PERMAGROUT E FS contains blended Epoxies as the resin and blended Amines as the hardener. Protective clothing and gloves are recommended to prevent sensitization to these materials. In case of ingestion or eye contact, it is advisable to contact a physician immediately. SDS are available for this product upon request.

WARRANTY

ChemProof Polymers, Inc. warrants that at the time of shipment, its products are free of defects in material and workmanship. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by ChemProof Polymers, Inc. ChemProof Polymers, Inc. makes no warranty concerning the suitability of its product for application to any surface, it being understood that the goods have been selected and the application ordered by the Owner/End User or Purchaser. CHEMPROOF POLYMERS, INC. MAKES NO WARRANTY, EXPRESS OR IMPLIED, THAT THE GOODS SHALL BE MERCHANTIBLE OR THAT THE GOODS ARE FIT FOR ANY PARTICULAR PURPOSE. THE WARRANTY OF REFUND OR REPLACEMENT SET FORTH HEREIN IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES ARISING BY LAW OR OTHERWISE; AND CHEMPROOF POLYMERS, INC. SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, DOWN TIME, DAMAGES TO PROPERTY OF THE OWNER/END USER, PURCHASER OR OTHER PERSONS, OR DAMAGES FOR WHICH THE OWNER/END USER OR PURCHASER MAY BE LIABLE TO

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Owner/End User or Purchaser.

The full product warranty is available at
www.chemproof.com.

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