

# FIBFLOOR-(PES)

## Penetrating Epoxy Sealer

### DESCRIPTION

Fibfloor-(PES) is a two component epoxy system designed to penetrate concrete surfaces. It fills surface pores resulting in improved wear resistance and lower absorption of water and salts. This system is supplied as a 50% solid formulation.

### AREAS OF APPLICATION

- Parking Decks
- Bridge Decks
- Industrial Floors
- Improve durability of dusting concrete surfaces

### FEATURES & BENEFITS

- Maximum penetration
- Improves wear and chemical resistance
- Reduces water and salt absorption
- Dustproof soft floor surfaces
- U.S.D.A approved

### TECHNICAL INFORMATION

The following results were developed under laboratory conditions.

Suitable for foot traffic	-	12 - 24hrs
Suitable for wheel traffic	-	48 hours
Total Solids	-	50% minimum
Flexibility 50 micron film	-	Excellent
Pot Life	-	3 hours
Shelf life	-	2 years in original,

### APPEARANCE

Fibfloor – (PES) is a clear , two component epoxy system consisting of a Part A and Part B. After placement and curing, the product has a smooth semi-gloss appearance.

### COVERAGE

Coverage Rate	m <sup>2</sup> /litre	
Concrete Surface	First Coat	Second Coat
Trowelled smooth	7.5 - 10.0	14.5 - 20.0
Broomed textured	3.5 - 5.0	7.4 - 10.0

The concrete surface texture greatly affects coverage rates and final appearance. Badly spalled resistance will reduce coverage rates



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## MATERIAL REQUIREMENTS

A two coat application using a coverage rate of 5.0 m<sup>2</sup>/litre will require approximately 20 litres of material/100 m<sup>2</sup> of area.

## APPLICATION METHODOLOGY

### SURFACE PREPARATION

New concrete must be a minimum of 28 days old and possess an open surface texture with all curing compounds and sealers removed. The concrete must be clean and sound. All oil, dirt, debris, paint and unsound concrete must be removed. The surface must be prepared mechanically, using sandblast shot blast or scarifier which will give an open surface profile with the cement paste removed from the surface.

The concrete should be dry for atleast 24 hours for maximum penetration and best result. Acid etching is acceptable only when mechanical preparation is impractical. It is recommended that only contractors experienced in the acid etching process use this means of surface preparation. The salts of the reaction must be thoroughly pressure washed away. Allow the concrete to completely dry

**NOTE :** Even with proper procedures, an acid etched surface may not provide as strong a bond as mechanical preparation procedures. Also, acid etching will not remove oil, grease, sealers and other materials that will interface with the bond on the surface of the concrete.

### MIXING

All materials should be in the proper temperature range of 16°C - 32°C. Mix Part B to Part A and mix 2- 3 minutes using drill and prop mixer. The epoxy must be well mixed to ensure proper chemical reaction. After mixing, place immediately.

### PLACEMENT

To apply the sealer concrete, use a pump-up or airless sprayer for best results. A short nap roller or lambs wool applicator may also be used.

## TECHNICAL SPECIFICATIONS

At 30°C	
Pot Life	: 30 min for 250 gms of mass
Working time	: 30 - 40 min at 30°C
Compressive Strength	: 1 day: 40 - 50 Mpa
	: 7 days: 60 - 70 Mpa
Tensile strength	14 -16 Mpa
Flexural strength	25 - 27 Mpa

## CHEMICAL RESISTANCE

10% Acetic Acid	10% Citric Acid
25% Nitric Acid	10% Lactic Acid
25% Ammonium Hydroxide	25% Phosphoric Acid
10% Sulfuric Acid	50% Phosphoric Acid

### Penetrating Epoxy Sealer

50% Caustic Soda (Sodium Hydroxide)	10% Hydrochloric Acid
50% Sulfuric Acid	50% Saturated Sugar

Xylene, Concentrated bleach, Fruit juices, Beer, Wine, Crude oil/Gas, Petrol, Saturated Urea, Butanol/Skydrol, White spirit. Use sealer coat as a topcoat for additional chemical resistance.

## COVERAGE

For 5 mm thickness to repair with this mortar, 10 - 11 kgs of the material will be required for 1m<sup>2</sup>.  
Fibfloor Primer coverage - 250 gms /m<sup>2</sup>.

## APPLICATION METHODOLOGY

New concrete must be a minimum of 28 days old and possess an open surface texture with all curing compounds and sealers removed. Old concrete must be clean and rough. All oil, dirt, debris, paint and unsound concrete must be removed. The surface must be prepared mechanically, which will give a surface profile of exposed large aggregate of the concrete. The final step in cleaning should be the complete removal of all residue with a vacuum cleaner or pressure washing.

Acid etching is acceptable only when mechanical preparation is impractical. It is recommended that only contractors experienced in the acid etching process use this means of surface preparation. The salts of the reaction must be thoroughly pressure washed away. Allow the concrete to completely dry.

**NOTE :** Even with proper procedures, an acid etched surface may not provide as strong a bond as mechanical preparation procedures. Also, acid etching will not remove oil, grease, sealers and other materials that will interface with the bond on the surface of the concrete.

### JOINTS & EDGES

Edges should be saw cut to 6 mm more than the overlay thickness and notched at the edge of the overlay to provide a locked edge. Chip the edge with a hand held chipping hammer to provide the wedged shaped notch. Moving joints as in the case of expansion joints should be brought up through the overlay by saw cutting or with the use of a divider strip. All crack over 2 mm wide should be routed out to a 6 mm width and 6 mm depth prior to application of the mortar.

### PRIMING

The surface must be primed with Fibfloor primer. After the concrete surface has been prepared as indicated above, apply the primer at the recommended coverage rate. Rough surfaces may require a stiff brush to apply the primer while a relatively smooth surface will allow use of roller application.

### MIXING

All materials should be in the proper temperature range of 16°C - 32°C. Mix Part A and B (Resin & Hardener) for 2 minutes using a drill and mix properly. For ease of mixing, add the Part B to Part A (not the reverse). The epoxy must be well mixed to ensure proper chemical reaction. After mixing epoxy, add Part C (aggregate). Mix for an additional 2 minutes or until all aggregate pieces are completely covered by the epoxy. Place immediately.

### PLACEMENT :

Fill route out cracks and joints with Fibseal JSE 700 mortar first then apply the mortar over the rest of the floor. Discharge material from mixer and place on to floor. For patching, spread with a trowel or square tipped shovel to a thickness of about 3 mm higher than the final desired height of the overlay. Compact and finish by hand or machine trowel.

### SEALING

If desired, the surface may be sealed or top coated with Fibfloor (SC) or (PU).

## CLEAN UP

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Clean tools and equipment with solvent such as xylene or toluene. Do not allow the epoxy to harden on equipment.

## STORAGE

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12 months in original unopened containers. Do not expose to direct sunlight.

## PACKAGING

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Fibfloor (PES) is an epoxy system that utilizes a 1 :1 ratio, 1 part of A that is mixed with 1 part of B. The units are pre-proportioned and packaged in 1,5,20kg units.

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