FLOORSHIELD SF EPOXY PRIMER Two Component Solvent-free Epoxy

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FLOORSHIELD SF EPOXY PRIMER is a two-component solvent free low viscosity 100% solid epoxy primer modified for excellent substrate wetting and penetration. It is to be used on prepared concrete to seal the porosity of concrete and provide penetration to enhance adhesion to prepare for polymer overlay.

Product Features:

- Solvent free thus no solvent smell
- Low viscosity for penetration
- Excellent wetting of substrate
- Excellent adhesion for overlayment

Application Area:

- Ideal to be used on prepared concrete to seal the porosity and provide penetration to enhance adhesion for subsequent coating.
- As primer and binder for FloorShield SF Epoxy Mortar.

Paint Type	Product Type	Finishing	Recommended Substrate	Pack Size
Solvent free	Interior & Exterior	Gloss	Floor Concrete	Part A: 7 kg Part B: 4 kg

Composition

Binder	: Epoxy Resin & Cycloaliphatic Amine

Technical Data

Solid Content	: 100%
Density	: 1.10 kg/L
Viscosity	: approximately 600 mPas
Shelf-life	: 12 months at 30℃ (tightly sealed and properly stored)
Mixing Ratio	: 7 : 4 (by weight)
Pot-life (30℃)	: 20 minutes
Application temperature	: 15-35℃
Consumption	: 0.25 kg/m^2 per coat (primer for Solvent-Free Epoxy System) 0.40 – 0.60 kg/m2 per coat (primer for Solvent Free Epoxy Mortar) This theoretical coverage rate has been calculated from the volume solids of the material and is related to the amount of coating applied onto a perfectly smooth surface without wastage. For a practical coverage rate, due allowance should be made for atmospheric conditions, surface roughness, geometry of the article being coated, the skill of applicator, method of application etc. when estimating quantities required for a particular job.
No of coats	: 1-2 coat dependant on substrate
Recoat Time	: 12 hours
Walk on Time	: 12 hours
Cleaning Solvent	: SA-65 Thinner

Performance Data

Adhesion Strength	: Concrete cohesive failure at > 1.5N/mm^2 (ASTM D4541)
Shore D Hardness	: > 80 (ASTM D2240)
Compressive Strength	: > 70 MPa (BS EN 13892-2)
Flexural Strength	: > 26 MPa (BS EN 13892-2)
Abrasion Resistant	: < 60 mg / 1000 revolutions /CS17/1kg load (ASTM D4060)

Application Method

Substrate Requirement	• Concrete or screed substrate compressive strength should be of minimum 25 N/mm^2 and adhesive pull off strength of 1.5 N/mm^2.

	• The moisture content of concrete shall be < 4% according to ASTM F2659, measured by Tramex meter. It shall be free from rising damp and must be waterproofed against negative ground water pressure.
Surface Preparation	• Concrete substrate must be clean, free of laitance and contaminants. • Prepare the concrete substrate surface by captive shot blasting, scarifying or mechanical grinding. Repair damaged area and patch up cracks and holes using a suitable repair material compatible with the coating system. • In the event the moisture content is > 4%, **FLOORSHIELD SF EPOXY MORTAR** may be applied as moisture barrier system, seal the porosity with **FLOORSHIELD SF EPOXY OP TEXTURE WHITE**. • Allow to cure over-night before the application of subsequent coating system.
Application	• Add all the **FLOORSHIELD SF EPOXY PRIMER (Part B)** into **FLOORSHIELD SF EPOXY PRIMER (Part A)** and mix both liquid parts thoroughly for 2-3 minutes using a mechanical stirrer until homogeneous. Use a 300 – 500 rpm slow-speed drill, with a spiral mixing blade or Jiffy mixer. • Move the mixing blade in circles around the inside edge of the pail from bottom to top. • Transfer the mixed material to a clean container and mix for another minute. Avoid inclusion of air during the mixing process. • Mixture is poured onto the surface in portions, may be applied by brush, roller or spray. • Spread with a squeegee and back roll with a roller. • On porous and heavily absorbent concretes a second application is advisable.
Overcoating	**Overcoating with Solvent-Free Epoxy System** • Subsequent finishing should be applied once the primer becomes tack-free but before the primer completely hardens which is within 24 hours. • Exposure of the paint film to water, chemical and abrasion should be avoided as far as possible before full cure of the coating. **Overlay with Solvent-Free Epoxy Mortar** • Pour all **FLOORSHIELD SF EPOXY MORTAR (Part B)** into the **FLOORSHIELD SF EPOXY MORTAR (Part A)** container and mix both liquid parts thoroughly for 1 minute by using a suitable electrical stirrer (with 750-watt high power mixer) until a fully homogenous mix has been achieved. • Transfer Part A & Part B (mixed) to a mortar mixer, slowly add in **FLOORSHIELD SF EPOXY MORTAR (Part C)**, and mix until uniform. Avoid inclusion of air during the mixing process. • Apply the mixture within 30 minutes of priming (while the priming coat is still tacky), and spread the screed onto the primer floor with screed box as per requirement thickness, compact and finish using a steel blade trowel or power float. Allow to cure overnight. • Apply 1 to 2 coats of **FLOORSHIELD SF EPOXY OP TEXTURE WHITE**, to seal the porous surface from Epoxy Mortar.

Cleaning

Clean up equipment with thinner immediately after use.

Storage and Shelf Life

The product must be stored in accordance with national regulations. Keep the containers in a dry, cool, well-ventilated space and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care. The shelf life of Part A and Part B are 12 months.

Environmental Conditions During Application

Do not apply when the environment relative humidity exceeds 85%, or when the surface to be painted is less than 3°C above the dew point. Do not apply at temperature below 7°C and temperature above 40°C.

Safety Precautions

- Keep container tightly closed and keep out of reach children or away from food and drink.
- Ensure good ventilation during application and drying.
- When applying paint, it is advisable to wear eye protection.
- In case of contact with eye, rinse with plenty of water immediately and seek medical advice.

- Remove splashes from skin by using soap or water.
- Paint must always be stored in a cool place.
- When transporting paint, care must be taken. Always keep container in a secure upright position.
- Dispose off any paint waste in accordance with the appropriate Environment Quality Regulations.

Note

* Theoretical Coverage is based on a mathematical formula

$$\left[\frac{Dry\ Film\ Thickness\ (um)\ x\ Specific\ Gravity}{Volume\ Solid\ (\%) x\ 10}\right] = kg/m^2/coat$$

and does not consider LOSS FACTORS.
Variables like porosity of substrate, application method, dilution ratio, dry film thickness, opacity and so on will affect the loss factor and can vary from 30% - 50% or even more.

The above information is given to the best of our knowledge based on laboratory tests and practical experience.
However, since we cannot anticipate or control the many conditions under which our products may be used, we can only guarantee the quality of the product itself. We reserve the right to alter the given without prior notice.