

HIGH-PERFORMANCE SOLVENT-FREE EPOXY RESIN

PFS EP3101: High-Performance Solvent-Free Epoxy Resin

PFS EP3101 is a state-of-the-art, solvent-free, two-component low viscosity epoxy resin. Designed for high-demand environments, this system is resistant to high mechanical loads due to its strong surface and exceptional wear and tear resistance. It provides an economical solution for mechanically loaded areas requiring a durable, high-performance finish.

Key Advantages

- **Superior Mineral Adhesion:** Provides excellent bonding capabilities on mineral substrates and can be highly filled with mineral aggregates.
 - **Advanced Self-Leveling:** Maintains a seamless, level finish even when integrated with up to 3 parts of specialized aggregate filler.
 - **High-Strength Mortar Production:** When filled with up to 10 parts of aggregate, it produces mortars with high resistance to rolling and abrasive loadings
 - **Chemical Resilience:** Offers a robust protective barrier with high resistance to a wide range of industrial chemicals.
 - **High-Performance Priming:** Optimized for use as a primer on mineral-based substrates prior to the application of solvent-free coatings and screeds.
 - **Environmental Safety:** Solvent-free formulation (100% solids).
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Typical Applications

- **Infrastructure:** Bridge coatings, parking decks, and tunnel linings.
 - **Water Management:** Potable water tank linings, sewage treatment plants, and swimming pools.
 - **Industrial:** Secondary containment for chemical tanks and floor slabs.
 - **Heavy Duty:** Truck bed liners and marine-grade protective coatings.
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Application Guidelines

- **Mixing Ratio:** 3:1 by volume.
- **Equipment:** Rubber squeegees or rolling is required.
- **Mixing:** Combine the components carefully using a slow-rotating electric drill equipped with a paddle, to achieve complete homogenization. (approx. 1.10g/cm³)
- **Surface Prep:** Ensure the substrate is sound, dry, and clean, with all dust, cement laitance, oil, and loose particles completely removed. (8~30°C substrate temperature, < 85% rel. humidity, 3K above dew point)
- **Priming:** Ensuring the layer is not overcoated for at least 24 hours.
- **Aesthetic Note:** Engineered with excellent self-leveling properties, even when filled with up to 3 parts of specialized mineral filler.

Storage & Packaging

- **Packaging:** E-500A: 15kg/pail & E-500B: 5kg/pail
- **Storage (not mixed):** Can be stored in original sealed packs under cool and dry conditions for at least 12 months.

Safety & Personal Protective Equipment (PPE)

- **Skin Protection:** Always wear impervious gloves and use a barrier cream when handling the product.
- **Eye Protection:** Protective eyewear is mandatory to prevent accidental contact during the high-pressure spray process.
- **Ventilation:** Ensure adequate ventilation in the workspace at all times during application.

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Technical & Physical Data

Property	Result
Viscosity	Approx. 500-600mPas
Pot life	1 hour
Resistance to foot traffic	After 24 hours
Full mechanical and chemical resistance	After 7 Days
Hardness (Shore D)	> 81
Compressive Strength	> 60 N/mm²
Flexural Strength	> 120 N/mm²
Tensile Strength	> 80 N/mm²
Elongation at Break	2%