



EPOXY PRIMER & SEALER — TWO-COMPONENT, SOLVENT-FREE

Fly PSF

Two-component, solvent-free, transparent epoxy primer and sealer for cementitious floors

Solvent-free and low in viscosity, Fly PSF penetrates and seals the concrete before the topcoat goes on — the bond of the whole system is made here.

DESCRIPTION

Fly PSF is a two-component, solvent-free, transparent epoxy resin system of low viscosity. It penetrates and seals cementitious substrates, binds residual fines and provides the bond between the concrete and the coatings above it. Cured, it is hard and abrasion resistant and withstands dilute acids and alkalis, petroleum products and salt solutions.

KEY ADVANTAGES

- Solvent-free — suitable for enclosed and occupied buildings
- Low viscosity: penetrates and seals rather than sitting on the surface
- Binds residual fines left by grinding or shot blasting
- Also serves as a binder for epoxy resin mortars and repair pastes
- Transparent, so the prepared surface stays visible for inspection
- Resistant to dilute acids and alkalis, petroleum products and salt solutions

FIELDS OF APPLICATION

Fly PSF primes cementitious surfaces that are to receive an epoxy floor coating from the Fly range, seals cement floors in warehouses and industrial areas where no topcoat is required, and is used as the binder for epoxy resin mortars and for smoothing substrates before the flooring layers are laid.

TECHNICAL DATA

Property	Typical Value
Base	Two-component, solvent-free epoxy resin
Colour	Transparent
Mixing ratio (A : B)	100 : 60 by weight
Density (A + B)	1.07 kg/L
Viscosity (+23°C)	710 mPa·s
Pot life (+20°C)	≈ 35 minutes
Pot life (+35°C)	≈ 18 minutes (typical)
Minimum application temperature	+8°C
Overcoat time (+23°C)	Minimum 20 h — maximum 48 h
Full cure (+23°C)	7 days



Property	Typical Value
Shore D hardness	83
Compressive strength (ASTM C579)	$\geq 55 \text{ N/mm}^2$
Flexural strength (ASTM C580)	$\geq 35 \text{ N/mm}^2$
Adhesion by pull-off (EN 1542)	$\geq 2.0 \text{ N/mm}^2$ (failure normally in the concrete)
Consumption per coat	$0.20 - 0.30 \text{ kg/m}^2 \approx 100 \mu\text{m dry film}$

Standards: Adhesion is determined to EN 1542; the declared value is the EN 1504-2 Table 5 requirement for a rigid coating subject to trafficking. Abrasion, pull-off and chemical resistance are tested to ASTM D4060, ASTM D4541 and ASTM C267. As a primer film Fly PSF is not itself a screed material and carries no EN 13813 class; the EN 13813 designation of the system is declared on the topcoat.

APPLICATION CONDITIONS

- Ambient temperature +10°C to +35°C
- Substrate temperature at least 3°C above the dew point
- Relative humidity below 80%
- Substrate moisture content below 4%
- Concrete at least C20/25 and at least 28 days old; cement screed at least 350 kg/m³ cement content

USE AS A RESIN MORTAR AND FILLER

For filling cracks and voids, or for levelling before the topcoat, mix Fly PSF with dried quartz sand of 0 – 0.4 mm grading (or Q35) at 1 : 1.5 to 1 : 2 by weight. Where a ready-made filler is preferred, use Fly E-Putty.

DIRECTIONS FOR USE

- 1. Substrate preparation:** The floor must be dry, sound and free of anything that prevents bonding — dust, grease, laitance, curing compounds and old coatings — and protected from water pressure acting from below. Prepare mechanically by grinding, shot blasting or water blasting to an open texture, then remove all dust with an industrial vacuum.
- 2. Mixing:** Components A and B are supplied in pre-measured containers. Add the whole of component B to component A and mix for about 5 minutes with a slow-speed mixer at roughly 300 rpm, working the mixture around the sides and bottom of the container so the hardener is uniformly dispersed. Mixing part-units by eye is the commonest cause of soft, uncured patches.
- 3. Application:** Apply by roller or brush in a single even coat, working the material into the surface. On very porous or freshly ground concrete a second coat may be needed to close the surface; apply it within the overcoat window.
- 4. Overcoating:** Overcoat after a minimum of 20 hours and within 48 hours at +23°C. Beyond 48 hours the primer must be abraded before the next layer is applied.

CONSUMPTION	PACKAGING	SHELF LIFE
0.20 – 0.30 kg/m ²	5 kg and 20 kg units	24 months



REMARKS & SAFETY

Epoxy resins and hardeners are irritant and may sensitise the skin. Wear gloves and eye protection and ensure adequate ventilation.

- Do not thin Fly PSF. It is formulated solvent-free and thinning destroys the cure.
- Mix complete units only, or weigh part-units accurately — never gauge by eye.
- Do not apply over a substrate with rising damp or negative water pressure.
- Store unopened in dry, covered conditions out of direct sunlight.
- Please consult the Safety Data Sheet before use.

System note: Fly PSF is the primer of the Fly epoxy flooring system — Fly PSF, then Fly E-Putty where levelling is needed, then Fly Floor 818 as the topcoat.