

Kesari Flexi Proof

Kesari Flexi Proof is a high-performance, Styrene-Butadiene Rubber (SBR) latex emulsion engineered for advanced waterproofing, structural concrete and mortar repairs, and high-strength bonding applications. When combined with Portland cement, it creates a robust, highly impermeable, polymer-modified matrix with superior flexibility and adhesion.

1. Product Technical Overview

Technical Parameter	Description / Specification
Chemical Base	Styrene-Butadiene Rubber (SBR) Latex
Appearance / Form	Milky-white liquid emulsion
Solid Content	~50%
Core Functions	Waterproofing slurry coating, old-to-new concrete bonding, structural repair mortar modifier, plaster additive, and anti-corrosive rebar protective coating.
Key Advantages	Exceptional adhesion, reduces water permeability/salt penetration, improves flexural/tensile strength, minimizes shrinkage, and provides vapor permeability.

2. Core Application Systems Overview

Kesari Flexi Proof is deployed through three primary technical execution systems depending on project needs:

- **System A:** Waterproof Slurry Coating (Terraces, Balconies & Water Tanks)
- **System B:** Old-to-New Concrete / Plaster Bonding Agent
- **System C:** Structural Repair Mortar & Rebar Protection

SYSTEM A: Waterproof Slurry Coating

Ideal for seamless waterproofing membranes applied beneath protective screeds or tiles.

- Surface Preparation:** Strip failed old treatments, clean mother concrete mechanically (wire-brushing or shot-blasting) to remove dust, oil, grease, and laitance. Fill internal cracks using Seal 'N' Safe modified mortar. Pre-wet to achieve a **Saturated Surface Dry (SSD)** condition with **no stagnant water**.
- Mixing Ratio:** Mix **Flexi Proof latex and Ordinary Portland Cement (OPC)** in the weight ratio of **1.0 : 1.5** to achieve a smooth, creamy, brushable consistency using a slow-speed stirrer.
- Application Method:** Apply first coat uniformly with a stiff-bristle brush, air-dry for 4 to 5 hours, then apply the second coat perpendicularly (at 90 degrees). Cure for at least 72 hours and protect with a 15 mm to 20 mm cement-sand screed (1:3 ratio) on horizontal traffic areas.

SYSTEM B: Old-to-New Concrete / Plaster Bonding Agent

Designed to eliminate cold-joint failures and create a high-strength monolithic bond between old concrete/ masonry and fresh repair mortar or plaster.

1. **Surface Preparation:** Chip away spalled, loose, or carbonated concrete to expose sound substrate. Clean free of dust and grease mechanically and pre-wet to an SSD condition with zero standing water.
2. **Mixing Ratio:** Blend **Flexi Proof and Cement** in a ratio of **1.0 : 1.5 by weight** to form a rich, creamy, paint-like consistency.
3. **Application Method:** Brush-apply a continuous, heavy coat onto the prepared substrate. **Crucial Rule:** Place fresh concrete, mortar, or plaster directly over the bond coat while it is still wet and **tacky**. If it dries, scrape off and reapply.

SYSTEM C: Structural Repair Mortar & Rebar Protection

Used for restoring damaged structural elements, honeycombed concrete, and patching spalled areas.

1. **Rebar Treatment:** Chip surrounding concrete to expose corroded steel rebars completely. Clean mechanically or via grit-blasting until bright and rust-free. Apply anti-corrosion slurry primer (Mix: 1 Part Seal 'N' Safe + 1 Part Water + 3 Parts Cement) onto the clean steel bars and let dry.
2. **Repair Mortar Mix Design:** Formulate high-performance polymer mortar using: 50 Kg Portland Cement, 125 to 150 Kg Clean Graded Sand (Zone II/III), 5 to 10 Kg Flexi Proof Latex, and water as required for workable trowelable consistency.
3. **Application Method:** Apply polymer mortar onto the repair patch while the rebar primer/concrete bond coat is still tacky. Build up in layers of **15 mm thickness maximum**, scratching intermediate layers for a key, and damp-cure for 3 to 7 days.