

Kesari Flexi Lock

Kesari Flexi Lock is a high-performance, elastomeric flexible, two-component polymer-modified cementitious coating system. It combines a specialized liquid polymer emulsion with a cementitious powder component, requiring only on-site mixing to form a seamless, durable waterproof membrane on concrete, masonry, and most construction substrates.

1. Technical Specifications & Physical Properties

Property	Specification / Value
Component Structure	Two-component (Part A: Liquid Polymer, Part B: Cementitious Powder)
Mixing Ratio	<i>2 ext{ Parts Powder} : 1 ext{ Part Liquid}</i> (by weight)
Pot Life	30 to 40 minutes at 25°C to 35°C
Tensile Strength	<i>2.5 ext{ N/mm}^2</i>
Elongation at Break	100% to 120%
Application Temperature	25°C to 35°C
Recoatability	4 to 6 hours drying interval between coats
Potable Water Safety	Certified safe for contact with drinking water by CFTRI Mysore

2. Key Advantages & Features

- **High Elasticity & Crack Bridging:** Provides excellent flexibility to bridge hairline structural cracks and dynamic movements.
- **Weather & UV Resistance:** Highly resistant to long-term weathering, atmospheric carbonation, chloride ion attack, and sulphate penetration.
- **Superior Adhesion:** Forms a tenacious bond to dense concrete, brickwork, and masonry substrates.
- **Non-Toxic Formulation:** Safe for water-retaining structures, drinking water tanks, and reservoirs.
- **Corrosion Protection:** Non-corrosive to embedded steel rebar or structural iron.

3. Recommended Areas of Application

- **Wet Areas:** Sunken slabs of bathrooms, toilets, kitchens, and balconies.
- **Water Retaining Structures:** Overhead and underground water tanks, swimming pools, and reservoirs.
- **Roofs & Terraces:** Heavy waterproof coating for flat/sloped roofs, chajjas, and parapet walls.

- **Sub-structures:** Basement exterior walls and foundation protection.
- **Specialist Uses:** Backing coating for marble and granite to prevent water migration and eliminate surface staining.

4. Mixing & Application Procedure

Surface Preparation

1. The substrate must be structurally sound, clean, and free from dust, loose particles, oil, grease, or efflorescence.
2. Treat structural cracks, honeycombs, or damaged patches using polymer-modified mortar formulated with **Kesari Flexi-Lock**.
3. Pre-wet the substrate to a **Saturated Surface-Dry (SSD)** condition, ensuring there is no standing or ponding water.

Mixing Instructions

1. Shake the liquid polymer component well before use.
2. Use a heavy-duty, slow-speed mechanical mixer fitted with a mixing paddle.
3. Slowly add the powder component into the liquid under continuous agitation until a lump-free, smooth, homogeneous brushable slurry is achieved.

Coating Application

1. **First Coat:** Apply the freshly mixed Kesari Flexi-Lock evenly using a stiff-bristled brush or roller on the prepared SSD surface. Allow it to cure/dry for **4 to 6 hours**.
2. **Second Coat:** Apply the second coat at a **90° right angle** to the first coat to guarantee complete, pinhole-free coverage.
3. **Keying (Optional for Plaster/Tiling Overlays):** While the second coat is still tacky/wet, broadcast clean, coarse sand lightly across the surface to build a mechanical key for subsequent screed layers.

5. Complete Wet Area System Workflow (e.g., Bathrooms & Toilets)

1. **Sub-Base Repair:** Inspect masonry walls and structural slabs; repair any hollow portions or surface defects using **Kesari Flexi Proof** modified mortar. Pipe penetrations and wall/floor junctions must be securely grouted
2. **Primary Splash-Zone Application:** Apply the first coat of **Kesari Flexi-Lock** across vertical splash zones (up to 2.2 meters / 7 feet high) and horizontal floors. Apply a second coat perpendicularly after 4 to 6 hours.
3. **Protective Screed Overlay:** Within 48 to 72 hours, cast a protective cement-sand mortar screed (mixed in a **1:3** ratio dosed with **Kesari Integral Waterproofing compound**) over the floor treatment to safeguard the membrane from subsequent construction traffic and establish proper drainage slopes.