

Kesari Flexi PU 250 is a single-component, water-based polyurethane hybrid liquid-applied waterproofing membrane. It is designed specifically for concealed waterproofing applications, wet rooms, balconies, and damp-proofing brickwork at plinth levels.

1 Product Technical Specifications

Technical Parameter	Specification Value & Standard
Composition	Water-based polyurethane dispersion and bitumen hybrid
Appearance / Color	Grey liquid
Density	~1.2 kg/L (EN ISO 2811-1)
Solid Content by Mass	~60%
Tensile Strength	~1.2 N/mm ² (ASTM D412)
Elongation at Break	~250% (ASTM D412)
Tensile Adhesion Strength	~1.0 N/mm ² (ASTM D4541)
Tear Strength	~13 N/mm (ASTM D624)
Packaging & Shelf Life	5 kg and 20 kg containers; 12 months shelf life

2 Key Features & Recommended Uses

- **Key Advantages:** 1-part, ready-to-use, water-based formulation (non-toxic and non-flammable); highly flexible and elastic, absorbing structural vibrations and bridging micro-cracks; fast drying and seamless.
- **Recommended Applications:** Concealed waterproofing for wet rooms (bathrooms, kitchens, shower recesses) protected by tile adhesive or screed; damp-proofing at plinth levels to prevent rising dampness from soil. *Note: Not suitable for swimming pools or continuous permanent water immersion.*

3 Complete Application System Protocol

Step 1: Substrate Preparation

- **Surface Condition:** Substrates must be sound, clean, dry (< 6% moisture content), and free of all oil, grease, coatings, laitance, and loose particles.
- **Mechanical Prep:** Prepare cementitious surfaces using abrasive blast cleaning or scarifying equipment to open pores and expose blowholes/voids. Remove all dust using an industrial vacuum.

Step 2: Priming System

- **Dilution:** Mix the product with **10% clean water** by weight to create the priming coat.
- **Application:** Apply 1 uniform, pore-free coat of primer using a brush or short-pile roller. If the substrate remains exceptionally dry or porous, apply a second primer coat.
- **Drying Time:** Allow approximately **30 minutes** of waiting time before overcoating.

Step 3: Waterproofing Membrane Application

- **First Coat:** Stir the ready-to-use, undiluted Kesari Flexi PU 250 thoroughly. Pour and spread evenly over the primed surface using a short-pile roller or brush.
- **Second Coat:** Allow an inter-coat waiting time of **2 to 4 hours** (at normal ambient conditions around 30°C) before applying the second coat uniformly.
- **Total Consumption:** Approximately **0.8 to 1.2 kg/m²** total across 2 coats (depending on surface profile and absorption).

Step 4: Protection & Curing

- **Overcoating:** Protect the final waterproof membrane with a protective plaster or screed layer after a minimum waiting time of **24 hours**.
- **Ponding Restriction:** The applied membrane must not be subjected to water ponding or testing before **7 days** of curing.

4. Storage & Safety Precautions

- **Storage:** Store in original, unopened, sealed packaging in dry conditions between +10°C and +35°C, protected from direct sunlight and frost.
- **Cleanup:** Clean all tools and equipment with water immediately after use; cured material can only be removed mechanically.