



Engineer Plus URP-99

SBR LATEX FOR WATERPROOFING AND REPAIRS

Description

Engineer Plus URP-99 is based on modified styrene butadiene latex supplied as a ready to use bonding agent in liquid consistency. It is used for repair of spalled concrete – floors, columns, beams, chhajjas, slabs. Waterproofing of toilets & bathrooms, small terraces etc. It bonds strongly to old & new concrete and to plasters. It reduces shrinkage, prevents cracking, dust pick up & improves abrasion resistance.

Areas of Application

- for concrete repairs - Spalled concrete of floors, columns, beams, chhajjas, slabs, parapets, etc.
- for waterproofing – Small roof terraces, sunken portions of toilets & bathrooms, chhajjas & lift pits, balconies & staircases.
- for waterproofing – liquid & effluent tanks, car decks & walkways.
- as a bonding agent – Bonding mortar for tiles & panels, as undercoat for special finishes such as top rendering coat for chemical resistant floors.
- as a bond coat – for bonding of new concrete to old concrete, masonry stone work, plastering.
- for cladding – fixing or re-fixing of slip bricks, tiles, stones & marble bedding.
- as external rendering – weatherproof & frost resistant render, high wear & erosion resistant render. as bonding slurry coat for pinhole treatment on concrete surface & as repair mortar for overhead application.

Features & Benefits

- Multipurpose – it is multipurpose & economical product, easy to use.
- Cracking – it prevents cracking by improving flexural strength.
- Hardness – improves the hardness & prevents dust generation.
- Shrinkage – Reduces drying & aging shrinkage cracks.
- Bonding – Bond strongly to concrete, masonry, stonework, plasters, cementitious surfaces, asphalt & most of the building materials.
- erosion & corrosion – improves erosion resistance & prevents corrosion.
- abrasion resistance – improves abrasion resistance of the cement mix.
- grouting – Reduces viscosity of cement injection grout for better fluidity & bonding.

Method of Application

1. SURFACE PREPARATION

- Clean the surface with wire brush or scrubber to remove hidden dirt, loose particles, laitance & dust. Degrease the surface by using suitable solvents.

SBR LATEX FOR WATERPROOFING AND REPAIRS

- Repair the spalled concrete portion by saw, cutting the extreme edges of the repair location to a depth of at least 10 mm to avoid featheredging & to provide strong bond.
- Clean the concrete surface to remove any contamination where breaking is not possible. Roughen the surface by light scabbling or grit blasting.
- expose corroded rebar in the repairing area fully . Remove all loose scales & corrosion deposits and immediately clean the surface.

2. PRIMING

- for priming of steel surface, apply Engineer Plus Rust Arrest to all exposed reinforcement area and wash it with water jet before applying Engineer Plus Epoxy Zinc Rich Primer on the rebars.
- for priming of concrete substrate, the surface should be thoroughly saturated with potable water. Remove any excess of water prior to application. Slurry of primer coat is prepared by mixing of one part **Engineer Plus URP-99**, one part of water and 3 parts of fresh oPC cement. Slowly mix cement with binder to obtain a smooth consistency. Continue mixing the slurry during application to prevent settlement.

3. MIXING

- A forced action mixer is essential (Pan Mixer) & recommended to ensure that **Engineer Plus URP-99** mortar is thoroughly mixed or Use a suitable sized drum with heavy-duty electrical drill machine fitted with spiral paddle mixer at slow speed of 400-500 rpm.
- Hand mixing is permissible only for 25 kg or less quantity.
- Charge the mixer with required quantity of clean & dry sand, cement & mix for 1-2 minutes, then add **Engineer Plus URP-99** as per the dosages recommended. Mix for 2-3 minutes to avoid air entrapment. Keep on slowly adding water until the required consistency is achieved. do not add extra water

4. APPLICATION

- wide range of mix designs are recommended for different application using Engineer Plus URP-99

SI No.	Application	Composition	Quantity of Engineer Plus URP-99	Consistency & thickness
1	Patching & Repair Mortar & dry	<ul style="list-style-type: none"> • OPC – 50 Kg • Graded sharp & washed & dry sand – 150 Kg • Water – 10 litres 	10 litres	Mortar consistency, 6-40 mm thickness
2	Heavy duty floor screed	<ul style="list-style-type: none"> • OPC – 50 Kg • Graded sharp & washed sand – 75 Kg • Granite chips (3-6 mm) – 75 Kg • Water – 6 litres 	10 litres	Semi dry cohesive consistency, 10-40 mm thickness
3	Renders	<ul style="list-style-type: none"> • OPC – 50 Kg • Graded sharp & washed sand – 150 Kg • Water – 6 litres 	10 litres	Mortar consistency, 6-9 mm thickness
4	Bonding Mortar for slip bricks & tiles	<ul style="list-style-type: none"> • OPC – 50 Kg • Graded sharp & washed sand – 125 Kg • Water – 7 litres 	10 litres	Mortar consistency, 6-40 mm thickness.

SBR LATEX FOR WATERPROOFING AND REPAIRS

Technical Information

PROPERTIES	SPECIFICATION	RESULTS
Base		SBR Latex (styrene, butadine rubber)
Coverage OPCS: URP, 1:5 pbwt		20 – 22 sq ft/kg for two coats 1:1.5
Total active solid content		34 ± 2%
pH		8 – 9
pot life @ 300 C		30 – 45 minutes at 300C
Speciic gravity at 300 C		1.01+/- 0.02
pH		7 to 9
Compressive strength, N/mm ² – 7 days	(BS6319 part2:1983)	Passes the specification.
Tensile strength,N/mm ²	(ASTM C – 190-85)	Passes the specification
Flexural strength,N/mm ²		9>
Slant shear bond, N/mm ²	ASTM 881	30
Chemical resiatance to mild acids, alkalies, sulphates.		Resists
Resistance to water pressure, bar		Upto 2
Freeze thaw resistance		Excellent

Dosage

- 10 litres Engineer Plus URP-99 per 50 kg OPC cement.

Engineer Plus URP-99

SBR LATEX FOR WATERPROOFING AND REPAIRS

Shelf Life & Storage

Shelf life is 12 months from the date of manufacturing. Store in a cool & dry place in unopened condition (Prevent from direct sunlight).

PACKING



1LTR



5LTR



10LTR



20LTR

Head Office

61, Jawahar Marg, Near Sanjay Setu, Indore, MP 452007

Ph. +91 932 957 7550, 0731 409 9099 Email : engineerplusindia@gmail.com

Web : www.engineerplus.in / www.icoindia.co.in