

# KEM LATEX KRPN 47

## Latex for Waterproofing & Repairs

---

### **DESCRIPTION**

KRPN 47 is a high quality specification resistant liquid resin latex dispersion for improving adhesion and strength of all type of commonly used mortars. When blended with cement, the Polymer: Cement mixture makes it suitable to provide the barrier coating. KRPN 47 has excellent bonding property to mortars, concrete, Brickwork, Wood, Glass, Aluminum and Steel. The flexible and elastomeric nature of this system has properties, which are able to combat the inadequacies of cement like low flexural strength and tensile strength, low impact strength, and thin section fragility. The resultant system offers a tough, hard wearing surface with abrasion, chemical and weather carbonation resistance coupled with excellent waterproofing effect for marine environments as well.

### **ADVANTAGES:-**

1. Excellent adhesion to most building substrates.
2. Strength of adhesion to the base is distinctly improved. This allows structural bonds between existing mortars/concrete and fresh mortar.
3. Improves flexural, tensile, and thin section fragility of cementations system.
4. Allows breathing thus preventing peeling and scaling.
5. Gives a tough, hardwearing surface with effective waterproofing.
6. Economical when compared with epoxy mortars.
7. Reduces chloride/salt penetration in marine environment.
8. Resists carbonation effect.
9. Higher bond and adhesive strength.
10. Lower shrinkage characteristics.
11. Increases overall structural durability.

### **APPLICATIONS:-**

- Repair mortars for mending damaged spots in precast concrete industry, pipelines etc.
- Waterproofing water retaining structures, terraces, parapets, bathrooms and sunken portions of toilet blocks.

- Cold joints between old and new concrete can be made strong and non-permeable with bonding slurry consisting of KRPN 47 and cement mortar.
- Fixing ceramic tiles, floor screening and mosaic tiling.
- Crack repair and porous surface sealing.
- By using KRPN 47 the conditions created due to breeds of termites are avoided.
- Healthy conditions prevail and discomfort is eliminated.
- Improvement of the mechanical and technological characteristics of ready to use coarse and fine repair mortars intended for the repair of concrete.

### **SPECIFICATIONS**

Colour : Milky white.

Form : Liquid emulsion.

Appln. Temp. : > 5<sup>o</sup> C.

Service Temp.: - 40<sup>o</sup> C to + 90<sup>o</sup> C.

Solid Content : 47% ± 2

Pot life : Approx. 30 minutes.

Packing : 5/30/50 / 100 kg. cans.

Storage : Away from direct sunlight.

Shelf life : 12 months.

Toxicity : Non Toxic

KRPN 47 is resistant to salts, mild acids and strong alkalis between pH range 4 and 14.

### **USAGE:-**

Surface preparation of the substrate is vital for the effective adhesion and bonding of KRPN 47. So, the surface should be free of laitance and loose dust particles, oil, grease and other loose dirt. The surface should be wire brushed and broomed before application. In some case, the existing concrete must be chipped to a sound substrate where surfaces are contaminated with oil or grease, this should be removed by using a strong industrial detergent or organic degreaser.

- **How to use KRPN 47?**

### **Bonding old Concrete to New Concrete:-**

Weigh out 1 kg. of KRPN 47 in a plastic container of 2 liter capacity.

Weigh out 1 kg. of ordinary Portland cement preferably 53 Grade from a fresh bag of cement.

Add the cement gradually to the KRPN 47 with constant stirring. Ensure that the cement forms uniform slurry, without any lumps. Stir constantly until all the cement has been added to KRPN 47.

Apply this slurry on the properly prepared substrate; by a soft 4-inch wide paint brush.

1 Kg of KRPN 47 approximately gives average coverage of 30-35 square feet after mixing with cement.

#### **Repairs of Beams, Columns and Slab :-**

Remove the cover concrete and cut back to the sound concrete Zone.

Remove all the rust from the reinforcement by mechanical means.

Apply on coat of KRPN 47 bonding slurry on the reinforcement and the surrounding concrete surface.

When the bonding slurry is still tacky apply modified mortar by pressing in position using 3 to 4kgs KRPN 47 per 50kgs bag of cement with 125kgs sand (zone-II) and 10ltrs water Modified mortar can be applied up to a thickness of 20 mm. For Building up to higher thickness leave the first layer to dry overnight and apply second layer with one more coat of bonding slurry.

#### **Screed Mortars & Plaster:-**

KRPN 47 is admixed at a dosage of 1.5 kgs per 50kg bag of cement to improve properties of General plaster (C :S -> 1:4) and screed free from shrinkage crack and for achieving higher compressive and tensile strength. Screeds over water proofing membranes and patch up repairs before application of water proofing membranes is done with KRPN 47 admixed mortars.

#### **Waterproof Coating:-**

Prepare a slurry coat of cement- KRPN -47 mixing them at a ratio 1:4:6 (KRPN : Water:Cement). The slurry has to be applied on

the surface with a soft 4-inch plastic thistle brush in one direction. Allow this first coat to air dry for about 4 hrs. Do not spray any water on it.

Apply a second coat of the slurry in the direction of right angles to the first coat. Allow this coat to air dry overnight, and do not spray any water or walk over the surface.

After about 12 hours of air drying of the second coat, sprinkle little water on the coating at an interval of 2 hours. Continue this for 48 hours. The surface can then be put to use.

**Consumption** - 1 kg of KRPN-47 will cover 65-80 - sq. ft. area in 2 coats for a proportion mix 1:4:6( KRPN : Water : Cement)

#### **TECHNICAL DATA**

Compressive Strength: 39to43 N/mm<sup>2</sup> for 5 Ltr. dosages.

43 to 55 N/mm<sup>2</sup> for 7 Ltr dosage.  
Tensile Strength : 5 to 7 N/mm<sup>2</sup>

#### **SAFETY**

KRPN 47 is non-toxic, non-flammable and non-hazardous. However, any splashes on any part of the human body, must be washed with plenty of water.