RANS ENGINEERING

RANSPOXY-LV

{EPOXY REPAIR MORTARS FOR REHABILITATION AND STRENGTHENING OF CORRODED CONCRETE STRUCTURES}

RECPL-311

OVERVIEW

RANSPOXY-LV is Solvent free epoxy formulation being extensively used as structural adhesive, as protective coatings and as repair mortars for rehabilitation and strengthening of corroded concrete structures.

Subsequently, protective coating of reinforcing steel is applied to protect further corrosion of the rods with additional bars welded on, if necessary. The removed portions of the concrete are then made well with a new cement plaster/new concrete/gunite layer after applying RANSPOXY-LV for bonding new to old concrete formulation to ensure a monolithic bond, which will enhance the effectiveness of the repair. Subsequently, protective coating, complete curing of the made up layer should be ensured.

PROPERTIES/ADVANTAGES

As an alternative to new concrete/gunite layer/cement plaster, epoxy mortar of about 5 mm thick can also be applied. This is especially useful in places where conventional curing of concrete is not feasible. Application of epoxy mortar treatment, however, is considerably expensive in comparison with new concrete/cement plaster.

RECOMMENDED USES

They have been extensively used for repair of industrial structures subject to chemical corrosion, residential and office premises in marine atmosphere and for repair of damaged concrete in hydraulic structures. Given below are the normal procedures in such cases.

INSTRUCTIONS FOR USE

The application temperature should be between 15°C to 45°C. Application procedures may vary slightly depending upon site conditions. The general recommended guidelines for the application of the waterproofing system are as follows:

Surface preparation

For better adhesion, it is essential to clean the surface on which the material is to be consumed. To remove dust, dirt, or loose particles by emery paper, wire brush. To get optimum performance the surface must be dry, free from oil grease.

PROTECTIVE COATING TO REINFORCING RODS:

We recommend two coats of **RANSPOXY-LV** as per the proportionate cited.

The bars should be thoroughly roughened and made free of rust prior to application. Apply first coat as per the ratio cited above followed by second coat, when the first coat is tack-free. While the top coat is still tacky, quartz sand mix no.10 should be sprinkled so as to provide a rough finish. Subsequently treatment can be carried out after curing of coating for minimum period of 24 hours, preferably latest within 3 days.

ADHESIVE LAYER FOR BONDING OLD CONCRETE TO NEW CONCRETE / CEMENT PLASTER TO METAL SURFACE / GUNITE LAYER:

- For Old concrete to new concrete: {Reinforced bars}
- Apply one coat of **RANSPOXY-LV** to the MS bars and the cement plaster to be coated with **RANSPOXY-PMR250** Sprinkle the fine sand on the both the coated surface and allow to complete dry. On complete curing new plaster can be carried out.
- For Cement plaster to Metal surface: Apply one coat of **RANSPOXY-LV** and sprinkle sand on the surface.

SUGGESTION FOR MORTAR

KOTA / CONCRETE JOINTS : [5 MM – 25 MM]	Resin	Hardener	Filler
	100 gms	80 gms	540 gms
EPOXY COVING : [25 MM / 50 MM / 75 MM & 90 MM]	Resin	Hardener	Filler
	100 gms	80 gms	1440 gms

SUGGESTION FOR COATING:

pH Between	In range of 6-8 pH	**PMR-250** & **WP-450**…. Coating
pH Between	In range of 5-9 pH	**PMR-250** & **CTR**…. Coating
pH Between	In range of 4-10 pH	**PMR-250** & **RANS-LV**…. Coating
pH Between	In range of 2-12 pH	**PMR-250** & **RANS-CRC**…. 5mm Screeding

PROTECTIVE COATING TO VERSATILE SEGMENTS: [MS&CONCRETE]

OFFSHORE	PETROCHEMICALS	INFRASTRU -CTURE
POWER	PAPER PLANTS	FERTILIZERS INDUSTRIES
ETP PLANTS	UTILITY PLANTS	CHEMICAL PLANT
and more like SHIPS, CEMENT, MARBLE CUTTING, AUTOMOBILE INDUSTRIES		

PRECAUTION:

Mix only the required quantity of material which can be utilize within stipulated pot-life period to avoid solidification.
Wash all tools and tackles with ample of water immediately after application is completed.

HEALTH & SAFETY

Avoid prolonged contact with eyes and skin. For detailed information refer to relevant material safety data sheet.

PACKGING & STORAGE

RANSPOXY-LV is packaged as per given details in Technical Data:-

Self-life	12-15 months, stored in cool and dry Place In sealed Containers.
Packaging	36 kgs, 18 kgs, 9 kgs, 1.8 kgs.
Storage	Material should be stored in an enclosed area and away from direct sunlight and heat.

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TECHNICAL DATA

Product	Epoxy Repair Mortars for Rehabilitation.
Ratio	Resin part 1.0 pbv 1.0 pbw Hardener part 1.0 pbv 0.8 pbw
Finish	On complete curing ------ **Glossy Pale Yellow**
Viscosity of mix	2000-3500 CPS.
Coverage of mix	Mild steel 50-60 sq. ft/per coat with 250 microns Concrete 45-50 sq. ft/per coat with 250 microns
Pot-life of mix	30-40 min. at 35`c
Curing	Gets completely cured at 35`c RT within 5-7 days
Compressive strength	ISO 604 Mpa 86 [Mix of R/H/Silica sand]

PICTURES/IMAGES AT GLANCE

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[An ISO 9001: 2015 Company]

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