

LAVAPOXY

Three Component Epoxy Mortar

Description:

LAVAPOXY is a three components, solvent free, finish high quality epoxy based mortar for repair of structural defects. The system is based on epoxy resin, modified curing agent and a well graded aggregate filler. When mixed, it produces a thixotropic mix that is applied by trowel as a durable, chemical resistant mortar suitable for concrete repair. Due to its thixotropic nature, it can be used for vertical and horizontal applications.

Applications:

LAVAPOXY is suitable for wide range of repair application including:

- General concrete repair mortar for exterior and interior application.
- Repair of structural concrete defected elements.
- Re-profiling of expansion joints and concrete edges.
- Can also be used for sewerage works and manhole lining.
- Repair for walkways, garages, residence driveways.
- Repair of concrete floors prior to epoxy, Polyurethane systems application

Advantages:

- Pre-weighed quality controlled materials ensure consistency and reduce risk of site errors
- Excellent bonding strength with all concrete surfaces
- Non shrink mortar with high compressive strength
- High impact and erosion resistance
- Resistant to wide range of acids, alkalis and industrial chemicals

Instructions for Use:

Surface Preparation:

In concrete repairs, proper surface preparation is essential for obtaining a good result. Mark the boundary of the damaged areas of concrete and then cut neatly by saw cutting machine or disc grinder to a depth of 10mm. Feather edge is not permitted. Then chip the concrete within the boundary down to sound base using sharp tools or chipping hammer. All corroded steel should be completely exposed including the rear side of the bar to enable thorough cleaning. In case that reinforcing bars section is reduced due to oxidization, integrate them with additional bar reinforcement.

The concrete substrate should be clean from all grease, contaminants, oil and loose material. After completing the chipping, clean the surface with steel brush. In case of deep rusting or contamination, it is recommended to clean using sand blasting to reinforcing steel. Particular attention should be paid to the rear of the bar to ensure all corrosion products have been removed. Once the reinforcing steel has been cleaned it should be coated immediately with one coat of LAVAZINC EP (two component zinc rich epoxy primer) or LAVAFER (two component cementitious corrosion inhibiting primer).

At the time of application, the defected surface should be primed with ARMOPRIME EP 70-solvent based epoxy primer, using a stiff brush. If the primer appears to be absorbed into the surface easily, it will be necessary to apply a second coat once the initial coat is tack free. Allow the primer to remain tacky prior to the application of LAVAPOXY.

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Mixing:

LAVAPOXY is supplied as a kit containing three pre-weighed component ready for onsite mixing, resin (part A), hardener (part B) and filler (part C). First, the two resin components A and B should be stirred separately for two minutes to ensure that the contents are blended thoroughly. Then add contents of part B (hardener) to part A (base) contents, and mix thoroughly for few minutes and slowly add the contents of part C (filler) while mixing till a homogeneous lump free consistency mix is achieved.

Do not add thinner to the mixture, the product is designed to be ready for use.

Application:

Apply LAVAPOXY manually with a trowel or spatula to the prepared and primed surface of concrete. The mix should be applied firmly to the surface to ensure a complete compaction and bonding to the substrate. Use a steel trowel to finish the applied mortar before it sets. The recommended applied thickness for horizontal application would be 5 mm up to 50 mm in one layer and for vertical application from 3 to 12 mm in one layer. If more thickness is needed, apply subsequent layers with 8 to 24 hours interval. If the extra layers are applied beyond the re-coating time then prime the surface again.

For floor repair application, ensure proper coverage while applying to concrete surfaces and proper working into cracks if repairing static cracks in concrete surface of the floor. Use a clean trowel or spatula to avoid to build of lumps in the epoxy mortar layer. The application of LAVAPOXY is manual.

TECHNICAL PROPERTIES	
Appearance	Light Grey
Mix Density	1.95 ± 0.03 kg/lit
Potlife time of mixture	60 minutes @25°C
Temp. of Application	From +5°C to 40°C
Application Thickness	Horizontal: up to 50 mm Vertical: 3 to 12 mm
Recoating Interval	8 – 24 hours
Initial Hardness @25°C	24 hours
Full Cure @25°C	7 days
Adhesion bond to concrete (ASTM D4541)	≥1.8 N/mm ²
Compressive Strength (ASTM C579)	>70 N/mm ² @ 7 days

Flexural Strength (ASTM C580)	34 N/mm ²
Tensile Strength (BS 6319, part 7)	9.0 N/mm ²
Chemical Resistance	mild acids, alkali solutions, sea water, oils and detergents

*Values indicated may vary depending on the environment and conditions of the material. Figures given are tested according to standard laboratory conditions.

Standards:

- EN 1504-3
- ASTM D4541, C579, C580
- BS 6319-2

Coverage:

1.95 kg of LAVAPOXY achieves 1.0 square meter @ 1.0 mm thickness.

Packaging:

LAVAPOXY is supplied in 4 Ltr. Three-part metal containers.

Storage Conditions:

Store in original packing in dry conditions away from direct sunlight and in temperature-controlled warehouse.

Shelf Life:

LAVAPOXY can be utilized within 12 months of production date if stored in proper conditions in an unopened original packing.

Cleaning:

Clean tools with ARMOSOLVENT prior to product hardening. Hardened materials can only be removed mechanically.

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Remarks:

- Partial mixing of the product components should not be allowed under any conditions.
- It is recommended to shade the working area while mixing and placing LAVAPOXY. Used tools should be kept in shade.

Health and Safety:

Avoid contact with eyes and skin. Wear suitable protective clothing such as coveralls, goggles, dust mask and gloves. Use barrier cream. Ensure that there is adequate ventilation. Do not breathe vapour or spray mist.

FIRST AID:

- Eyes: In the event of accidental splashes, flush with warm water and seek medical advice.
- Skin: Wash skin thoroughly with soap and water
- Inhalation: Remove to fresh air, keep patient rested
- Ingestion: Do not induce vomiting. Seek immediate medical attention.

For further safety information, please refer to LAVAPOXY Material Safety Data Sheet.

MATEX Rev.06-0223

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