

LAVAREP F80

High Compressive Strength Shrinkage Free Repairing Mortar

Description:

LAVAREP F80 is a premixed, cementitious, fiber reinforced, polymer modified, shrinkage compensated high quality repairing mortar. It is composed of hydraulic binders, silica sand graded aggregates, special additives and reinforcing fiber to perform batching repairs with high compressive strength. It is supplied in ready to use blended powder which requires only addition of water to produce workable, thixotropic, non-sagging repair mortar for vertical and overhead applications.

Applications:

LAVAREP F80 is suitable for wide range of concrete and cement structural repair mortar, especially in situations where high abrasion and high mechanical strength are required including:

- General repair for concrete structures.
- Repair of expansion joints.
- Pre-cast concrete repairs.
- General Repair of degraded concrete structural elements.
- Honeycombing repair in reinforced concrete elements.
- Edges of beams, pillars, risers of balconies, terraces.
- Bridges, dams, tunnels, channels and concrete pavements.
- Highly trafficked surfaces, particularly transition strips adjacent to mechanical bridge joints.
- Repairs in marine environments or other situations, where concrete is in contact with chloride or sulphate solutions.
- Floor repairs in industrial areas, especially if exposed to oil or lubricants.
- Pile cap re-profiling and treatment.

Advantages:

- Single component, requires addition of water only.
- Excellent bond to all concrete substrates.
- Can be applied on vertical, overhead or horizontal places without the use of formwork.
- Shrinkage compensated reduces the risk of cracking.
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- High compressive strength and impact resistant of finished layer.
- High build achievable with excellent mechanical strength.
- Excellent workability and thixotropic mortar.
- Low permeability provides protection against chloride, atmosphere gases and salts penetration.
- Re-coatable and compatible with other cement products.

Instructions for Use:

Surface Preparation:

Preparation of cementitious surfaces for repair should ensure the removal of all grease, contaminants, oil and loose material, after cleaning by mechanical tools, to avoid "feather edging", it is advisable to neatly cut the repair boundary by concrete saw to a depth of 10mm. All corroded steel should be completely exposed including the rear of the bar to enable thorough cleaning.

It is recommended to apply mechanical cleaning to reinforcing steel and 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 or LAVAFER.

Before applying LAVAREP F80 soak the substrate with water. Allow excess water to evaporate or use sponge, and ensure a saturated surface dry condition "SSD" prior to application of repair mortar.

If the application to be done in short period of time, apply a coat of MEGABOND SBR slurry as a bonding coat before applying repair mortar.

Application of repair mortars over dry concrete surfaces without saturation with clean water "SSD" or priming with a bonding agent will result in failure of product and defect in repair.

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Mixing:

To prepare the mortar, pour 3.5 liters of clean water into container and add slowly the LAVAREP F80 powder bag contents (25 Kg). Mix using spiral paddle fitted to slow speed heavy duty drill for few minutes till a homogeneous lump free consistency mix is achieved. Always add powder to water and not water to powder.

Avoid adding thinning water after the mixture is homogenous and ready for use.

Application:

Apply LAVAREP F80 manually with a trowel or spatula to the saturated surface of concrete "SSD". For vertical surfaces applications, the recommend applicable layer thickness is from 5 mm up to a maximum of 50 mm. On horizontal surfaces, repair thickness can reach up to 100 mm per layer. For vertical application, if the application of a second layer is necessary to reach higher thicknesses, the first layer must be applied with proper pushing then roughened to increase bonding with the second layer.

For large repair areas, LAVAREP F80 can be sprayed by a mortar spray machine. Ensure proper mix of gauging water and apply a sample area to ensure mixture consistency and bonding prior to full application.

Curing cementitious repair products is essential. It is essential to follow good concrete curing practice and to protect the repaired area from drying winds, sun or excessive heat to avoid rapid evaporation of mix water in the applied mortar. Cover the area with wet hessian cloth covered with polyethylene sheet for two days. A coat of a recommended MATEX curing agent could be applied instead. Consult with MATEX Technical Department for further instructions.

Standards:

LAVAREP F80 confirms to:

- BS 1881, Part 116, BS 6319
- ASTM C109, ASTM C952, C 928, C 1240, C 580

Cleaning:

Clean tools with water prior to product hardening.

Packaging:

LAVAREP F80 is supplied in 25 kg high quality recyclable paper bags.

Coverage:

LAVAREP F80 achieves coverage of 1.9 kg/square meter @ 1mm thickness.

Yield:

13.5 liters / 25 Kg. bag

TECHNICAL PROPERTIES	
Appearance	: Cement Grey
Dry Density	: 2.05 Kg/Lt.
Wet Density	: 2.20 Kg/Lt
Aggregate Size	: Up to 2.0 mm
Temp. of application	: From +5°C to +35°C
Adhesion bond to concrete	: ≥ 2.0 N/mm ²
Water Absorption	: <2.0%
Pot-life-time of mixture	: 35 minutes @ 25°C
Compressive strength	: >55 N/mm ² @ 7 days >80 N/mm ² @ 28 days
Flexural Strength	: 13.0 N/mm ² @ 28 days
Thickness per Coat	: 5–50 mm vertical 5–20 mm overhead 5-100 mm horizontal

Storage Conditions:

Store in original packing in dry conditions away from direct sunlight and high humidity levels.

Shelf Life:

LAVAREP F80 can be utilized within 12 months of production date if stored in proper conditions in unopened original packing.

Health and Safety:

- Use goggles and gloves during application. Do not breathe vapor of products. Use only in well ventilated areas.
- Avoid contact with eyes or skin.

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This technical data sheet is not considered as local building codes. It shall be used as general reference for the product, based on our current knowledge and experience. However the company do not accept any liability arising from the use of its products as it has no direct control on how and where the product is applied.

