

LAVACEM FLOW

Flowable Non Shrink Repair Mortar

Description:

LAVACEM FLOW is a single component, flowable, cement based non shrink mortar for repair of damaged concrete. It is composed of Portland cement, high resistant hydraulic binders, graded silica, aggregates, fiber and special additives.

It is formulated as a highly flowable mix with the use of minimum water content to generate high early strength and durable concrete

LAVACEM FLOW is characterized with free flow while casting which assures complete filling for limited and difficult reaching areas.

Uses:

- Repair of structural concrete sections where it is difficult to cast mortar or steel reinforcement is congested.
- Structural elements repair.
- Casting over steel reinforcement.
- Damaged reinforced concrete repair.
- Repair of defected concrete bodies.
- Repair of concrete pavements.
- Consolidate honeycombed concrete element in pillars, walls, columns etc.

Advantages:

- Shrinkage controlled, with low permeability.
- Excellent bond to all concrete substrates.
- Self-compacting nature with minimal risk of honeycomb and segregation.
- High compressive strength.
- Resistant against atmospheric gas, frost and thaw cycles.
- Excellent resistant to Chloride, Salts and Chemical attack.
- Low alkaline content.
- Can be applied using pumping machine.

Instructions for Use:

Surface Preparation:

All concrete surfaces should be free from grease, contaminants, oil and loose material. After cleaning by mechanical tools, to avoid "feather edging", it is advisable to neatly delineate the repair boundary by saw cutting.

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 mechanically cleaned, it should be coated immediately with one coat of LAVAZINC EP or LAVAFER.

Before applying LAVACEM FLOW soak the substrate with water, allow excess water to drain. Ensure a saturated surface dry condition "SSD" prior to application of mortar.

The application of the mixed product over dry concrete surfaces without saturation with clean water or priming with a bonding agent may result to a bonding failure.

Mixing:

To prepare LAVACEM FLOW pour 3.5 liters of clean water into container and add slowly the whole contents of the product. Mix using spiral paddle on slow speed heavy duty mixer for few minutes till a homogeneous lump free consistency mix is achieved. Always add powder to water and not the other way around.

Avoid adding additional water after the mixture is homogenous and ready for use. Apply the product immediately after mixing to obtain the full benefit of the flowability.

LAVACEM FLOW

Application:

It is recommended that machine mixing capacity and labor force are adequate to ensure a continuous operation of casting.

Erect clean formwork for the area that needs to be repaired. Cover the area with 5 cm excess boundary over the repair cutting edge. Apply a sealant to the formwork to prevent bleeding from the edges. Prepare a pouring entrance for the mix from the upper side by "bird mouth shape", to receive the material and deliver behind the formwork.

Mix measured volumetric amount of LAVACEM FLOW to fill the repair area, consequent pouring prevents any defect in the repair area. Present the mix to the formwork in continuous pouring till the whole repair area is filled.

The repaired area shall be cured with good concrete curing practice and protected from drying winds, sun or excessive heat. Curing shall be done with a non-degradable curing compound CEMCURE AR. Alternatively, a wet hessian cloth covered with polythene sheet can also be employed. Curing should repair as soon as final finish is achieved. Avoid rapid evaporation of applied mortar, by applying clean water for curing for two days or apply a coat of a recommended MATEX curing agent. Consult with MATEX Technical Department for further instructions.

Standards:

LAVACEM FLOW conforms to:

- ASTM C 109, C 1583, C 580, C 928, C 1240

Coverage:

LAVACEM FLOW achieves 13.80 liter of mixture per 25 kg bag.

Storage Conditions:

LAVACEM FLOW to be stored in original packing in dry conditions away from direct sunlight and high humidity levels.

Packaging:

LAVACEM FLOW is supplied in 25 kg recyclable paper bags.

TECHNICAL PROPERTIES:

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| Appearance | : Grey Powder |
| Wet Density | : 2.1 kg/m ³ |
| Allowed temp. of application | : 5°C to +40 °C |
| Adhesion bond to concrete | : 1.6 N/mm ² |
| Shrinkage | : NIL |
| Setting time (BS4550) | : Initial 2 hours Final 4 hours |
| Compressive strength | : 38 N/mm ² @ 7 days 60 N/mm ² @ 28 days |
| Flexural strength | : 7.0 N/mm ² @ 28 days |
| Tensile strength | : 4.0 N/mm ² @ 28 days |
| Contrastive | : .05% after 28 days |
| Expansion | |
| Module of Elasticity | : 25,000 N/mm ² @ 28 days |
| pH Value | : 12 – 13 |
| Noxiousity according to ECM 88/379 | : None |
| Max. inert granulometry | : 3.0 mm |

Cleaning:

Clean tools with water prior to product hardening.

Shelf Life:

LAVACEM FLOW 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. Use only in well ventilated areas.
- Avoid contact with eyes or skin.
- If contact with eyes occurred, wash immediately with plenty of clean water and seek immediately medical help.

MATEX Rev.04-0121

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.

