

GS Rep Mortar

Polymer-modified, dual shrinkage compensated, cementitious fiber re-enforced repairing mortar.

DESCRIPTION

GS Rep Mortar, is cement based one part, polymer modified, fiber reinforced, thixotropic structural repair mortar.

TYPICAL APPLICATIONS

- Repair of the reinforced concrete elements. Protection of the concrete against sulphate and chloride attacks
- Repair of the marine structures
- Repair of the underground structures
- Structural and non-structural repairs of high strength concrete elements.
- Surface repair of the RC elements before polymer coating applications.
- Repair of the tie-rod, test and cone holes

ADVANTAGES

- Mixed with only water and can be applied easily
- Perfect bonding to the concrete and steel.
- High strength
- Thixotropic and can be used in over-head applications.
- Waterproof
- Resistant to freeze-thaw cycle
- Resistant to sulphate and chloride attacks
- Resistant to oils n Shrinkage compensated.

Technical Data

Product Chemistry	Mineral, Polymer modified cement, Fillers, Fibers
Color	Grey
Compressive strength TS EN 196 1 Day	>20N/mm ²
7 Days	>50 N/mm ²
28 Days	>60 N/mm ²

Flexural Strength (28 days)	7 N/mm ²
Bonding Strength to concrete (28 days)	>2 N.mm ²
Elastic Modulus (28 days)	>20.000 N/mm ²
Capillary water absorption (TS EN 13057)	< 0.5Kg /m ² /hr
Application Temperature	+5C to 30C
Application Thickness	Min. 10mm Max. 40mm
Pot Life	30 min
Service Temperature	-20C to +400C
Full Cure at 20C	28 Days

PACKAGING AND COLORS

GS Rep Mortar is available in 20 kg packing.

Coverage

19.20 kg/m² for obtaining 1 cm thick layer.

APPLICATION GUIDELINES

SURFACE PREPARATION

The concrete surfaces must be sound, clean and dry. It shouldn't be weakened by over troweling and lack of curing. The concrete should be free of frost, curing membranes, waterproofing treatments, oil stains, laitance, friable material and dust. The perimeters of repairs to concrete that involve concrete removal and subsequent materials replacement shall be saw cut perpendicular to the repair surface, corroded reinforcements should be cleaned and if needed replaced with new ones. The surfaces should be wetted before application. If there is a water leakage it must be drained or properly plugged.

MIXING

Add enough water into a clean mixing bucket by using a proper water gauge. Add the powder into the bucket slowly and continuously. Mix the fresh mortar with a proper electrical mixer (300-600 rpm) for 4 minutes until having a homogenous

GS Rep Mortar

consistency. Let the mortar have rest for 4 minutes and re-mix for 30 seconds.

Mixing Ratio

GS Rep Mortar	1 kg Powder	20Kg bag
Water Quantity	>0.16 Liter	>3.2 Liter

PLACING / APPLICATION

GS Rep Mortar should be applied to the prepared surface by using a steel trowel. Application thickness should be between 1-4 cm. For thicker applications second layer of the mortar should be applied after 24 hours in setting, some water should be sprayed onto the mortar and the surface should be finished with using steel or wooden trowel. Open areas should be protected from the rain, wind, etc. aggressive whether conditions during the first 24-48 hours after finishing repair by using wet clothes, curing membranes etc.

Important Points:

Repair mortar should be applied in 30 minutes in 20°C.

Open areas should be protected from the rain, wind, etc. aggressive whether conditions during the first 24 hours after finishing repair.

HEALTH AND SAFETY

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention

Cement based materials' pot life and curing times vary depending on the relative humidity, substrate and ambient temperature. Reaction gets slow in low temperatures and it causes to extension on pot life and working time. On the other hand high temperatures speed up the reaction, which results to short pot life and working time. For full curing of material, both the substrate and ambient temperature shouldn't be under allowed application temperature.

Do not use GS Rep Mortar in case of contacting to liquids with a pH under 5.5.

Do not use as a screed or concrete topping in wide areas.

Cleaning Tools

After the application all tools should be cleaned with water. GS Rep Mortar can be cleaned with only mechanical abrasion after hardening.

STORAGE AND SHELF LIFE

Store under cover, away from flames, out of direct sunlight and protect from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice, consult Technical Services Department.