



4211 Groutart Rapid

Description

Cement based, polymer modified, high strength, non-shrink, self compacting, one component ultra fast setting grout mortar.

Fields of Application

- For fixing the manhole covers.
- Repair of concrete which is needed to be opened to the traffic immediately.
- Fixation of the steel columns on the foundations.
- Fixing the industrial machines to the floor.
- Prefabricated concrete installation.
- Fixation of industrial machines as generators, compressors and pumps, etc. to the ground.
- Suitable for interior and exterior applications.

Properties

- Very high early strength.
- Can be opened to service in 1 hour.
- Suitable to apply up to 15 cm in one layer.
- High adhesion strength.
- High compression strength.
- Non-shrink.
- Resistant to freeze thaw cycle.
- Not affected by weather conditions.
- Resistant to water.
- No segregation and low bleeding.
- Easy to apply, self compacting and fluid consistency.

Preparation of Substrates

- The application surface must be sound, dry and clean.
- The surfaces to be coated should be free of adhesion preventive foreign substances such as dust, dirt, mould oil, paint etc.
- Damaged concrete should be removed.
- The application surface should be damp but not wet.
- Molds should be fixed well.
- Molds should have enough strength, be lined or coated with a bond- breaker for easy removal and all joints around the molds should be sealed with suitable material to ensure impermeability. Impermeability can be tested by filling water into the molds.
- Surface should be roughened by pressurized water or sanding.



4211 Groutart Rapid

Application

- Pour half of the 25 kg of Groutart Rapid in 2.5 – 3.0 lt of clean water slowly, mix well for the first 30 seconds (max. 500 cycle/min), until homogenized. After the first 30 seconds of mixing, pour remaining powder into the mixing container and mix the fresh mortar homogeneously 30 seconds more. Mix the parts max.60 seconds to have a homogenous mixture. Do not add any additives to the product other than those stated in the application instructions.
- Do not add water into the mortar while curing.
- Prepared mortar should be applied immediately.
- Be sure that there are no remaining air bubbles in the mortar which may cause adherence problems by inhibiting the surface contact to the concrete.
- Ensure that enough pressure is provided for fluidity.
- It is recommended that application should be completed in 15 minutes.
- For the applications which cannot be finished within 15 minutes, use a pump.

Post-Application Protection & Suggestions

- Clean tools and hands with water.
- Pour from one side only.
- After application, the curing surface should not be neglected.
- During the application the substrate and ambient temperature should be between +5 between +35 °C.
- Do not add any cement, aggregate etc. into the mixture during the application.
- Do not use vibrator for placing the mortar.
- The mixing water ratio should be within the recommended limits.
- Avoid material from contact with skin and eyes. In case of contact, wash your skin with water and go to the doctor immediately. For further information refer to the Safety Data Sheet.

Storage

- Stack the packages maximum 10 layers and should be kept dry and cool at between +5°C and +35°C in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 9 months conditional to complying with the above mentioned storage conditions.

Packaging

- 25 kg multi-ply paper bags.

Quality Certificates



Structural grouting mortar conforming
EN 1504 - 3 / Class R4.



4211 Groutart Rapid

Technical Properties

(at 23 °C and 50% RH)

General Data

Appearance	Grey powder
Shelf Life	9 months when stored in the original sealed packing in a dry place.

Application Data

Application Temperature Range	(+5°C) - (+35°C)
Mixing Ratio	2.5 – 3.0 liters water / 25 kg powder
Pot Life	5-20 minutes
Ready for Use (20 °C)	1 hour
Consumption	2.30 kg of powder (for 1 m ³ mortar)
Application Thickness	Min. 10 mm Max. 150 mm

Performance Data

Compressive Strength (EN 12190)	≥ 15.0 MPa (1 hour) ≥ 40.0 MPa (1 day) ≥ 50.0 MPa (7 days) ≥ 70.0 MPa (28 days)
Flexural Strength (EN 12190)	≥ 7.0 MPa (1 day) ≥ 10.0 MPa (28 days)
Modulus of Elasticity (EN 13412)	≥ 20 GPa
Bonding to Concrete (EN 1542)	≥ 2.0 MPa
Capillary Water Absorption (EN 13057)	≤ 0.5 kg/m ² h ^{0.5}
Restrained Shrinkage-Expansion (EN 12617-4)	≥ 2.0 MPa
Service Temperature Range	(-30°C) – (+80°C)
Dangerous Substances	See SDS.
Reaction to Fire	A1