KingGrout ® GP20

Pump applied, non-sagging cementitious joint filler for vertical joints of concrete elements.

DESCRIPTION

KingGrout GP20 is a single component, polymer modified mortar specially designed to fill the vertical joints of concrete elements. KingGrout GP20 is a blend of dry powder, well graded aggregate, fibers and special additives which when mixed with water produce a thixotropic mortar especially designed to fill the vertical joints without sagging using a proper pump and without a need to use formwork.

APPLICATIONS

- Filling the vertical joints between concrete panels.
- Filling cracks, holes and groves in concrete substrates.
- Casting top and bottom joints of wall elements.

ADVANTAGES

- Shrinkage controlled mortar, reduces the risk of cracking due to shrinkage and ensure full contact with host concrete.
- Easy to apply, single component, requires only addition of water.
- Thixotropic properties allowing extra high build for vertical applications.
- Extremely low permeability to water, providing excellent protection to steel reinforcements and host concrete.
- Cost effective, pump applied no formwork is required.

METHOD OF USE

Joint Surface Preparation

Surfaces must be clean, dry and free from dust, grease, oils and all other contaminants. The width of the joint must be at least 15 mm. If the joint is open from the both side, use a stopper board on one of the sides.

MIXING

To ensure proper mixing, a mechanically powered mixer should be used.

3.25 – 3.75 litres of clean water should be added to clean container. The powder is then added slowly to the water while mixing continuously with low speed mixer/drill (400 - 600 rpm). Mixing time should be continued for 3 minutes until uniform consistency is obtained.

TECHNICAL PROPERTIES @ 25°C. W/P = 0.14:

Fresh wet density:	2.2 ± 0.1 g/cm^3
Maximum aggregate size:	3 mm
Compressive strength: ASTM C109/109M-11	≥ 15 MPa @ 1 day ≥ 45 MPa @ 28 days
Flexural strength: BS 6319, Part3	≥ 6 MPa @ 7 days ≥ 9 MPa @ 28 days
Bond strength: ASTM D4541-02	≥ 2.5 MPa
Setting time:	40 - 60 min
Application temperature:	5°C to 35°C
Fire rating: EN 13505-1	Class A1 non-combustible
VOC: ASTM D2369	≤ 10 g/ltr (complies with LEED)

PLACING AND FINISHING

After mixing, the mortar is pumped into the joints and leveled with a steel trowel. If the joint is opened on the both sides, place a stopper board on one side of the joint. Remove the stopper board once sufficient amount of time has elapsed depending on the working conditions and use a trowel to finish the joint.

The mortar can be applied using a normal screw pump. Pump the mortar carefully into the joints to ensure that the joint is thoroughly filled with the material and obtain a structurally functional joint.

For the application behind reinforcement bars, a piece of steel tube with a pointed tip is attached to the hose to allow the ease of application.
Important: Do not vibrate the mortar in the vertical joints.

CURING

As KingGrout GP20 is a cementitious material, it should be cured in a similar method to concrete. Curing can be conducted by using KingKure 100A or by wet hessian sheets covered with polyethylene sheets.

CLEANING

All tools should be cleaned immediately after application using fresh water. Hardened materials must be cleaned mechanically.

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PACKAGING

KingGrout GP20 is available in 25 kg bags.

STORAGE

Shelf life is 1 year when stored under cover, out of direct sunlight and protected 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 KingKrete's Technical Services Department.

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 medical attention. Reseal containers after use. Use in well ventilated areas and avoid inhalation.

NOTE

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local KingKrete representative.

KingKrete Inc. reserves the right to have the true cause of any difficulty determined by accepted test methods.

QUALITY AND CARE

All products originating from KingKrete's manufacturing facilities are manufactured under a management system independently certified to conform to the requirements of the quality standard ISO 9001.

* Properties listed are based on laboratory-controlled tests.

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