

EPOCRETE GP

General Purpose Flowable Epoxy Grout

Description:

EPOCRETE GP is a solvent free epoxy resin grout formulated for grouting of gap widths from 10 to 100 mm. It consists of three component kit, resin base (A), hardener (B) and graded filler (C). When mixed together, the product forms a self-leveling grout.

EPOCRETE GP mainly used to provide a free-flowing grout, for use where physical properties, mechanical strength, high bearing and chemical resistance of the hardened grout are of utmost importance.

Uses:

EPOCRETE GP is suitable for a wide range of heavy duty applications including:

- Underplate grouting of structural elements and heavy machinery, equipment.
- Pile cap head treatment and waterproofing sealing.
- Equipment bases where chemical and acid spillage occurs.
- Base plate grouting in dynamic load situations such as turbines.
- Heavy industrial applications in steelworks, refineries chemical plants and electroplating works.
- Structural infill repair where very high strength is required.
- Rail track applications, to support heavy cranes.

Advantages:

- Excellent performance. Suitable for a wide range of loading situations including repetitive dynamic loads.
- Non-shrinking with high adhesion to contact surfaces.
- High compressive, tensile and flexural strengths.
- High chemical resistance.
- High early strength gain.
- Excellent adhesion to substrate.
- Excellent flowability with high effective bearing area for even load distribution.

- Low creep, maintains equipment alignment.
- High resistance to dynamic loads, thermal effects and chemical attacks.
- User friendly. Simple, full pack mixing to ensure that the performance characteristics are achieved.

Instructions for Use:

Surface Preparation:

All surfaces must be dry, clean, free from oil, grease, water, paints and dust. Unsound concrete must be removed. Concrete should be sufficiently cured.

Steel surfaces should be free of rust or any contaminated product. Sand blast or grind the steel and protect with ARMOPRIME EP100-a solvent free high performance epoxy primer to avoid a chance of rusting to start again.

The formwork should be constructed to be leak proof as EPOCRETE GP is a free flow grout. If needed, use foam rubber strip or mastic sealant beneath the constructed formwork and between joints.

For free flow grout conditions, it is essential to provide a hydrostatic head of grout. To achieve this, a feeding hopper should be used.

Concrete surface must be totally dry when the mixed product is poured as wet surface might cause de-bonding between concrete and the grout.

Mixing:

It is recommended to stir the base resin and the hardener separately for two minutes to ensure that they are blended well. The entire contents of the hardener (part B) should be poured into the base container (part A) and mixed for 2 - 3 minutes or until a homogeneous mix is achieved. While mixing add slowly component C (filler) and mix for 2 – 3 minutes more until getting a homogeneous unified color mixture. Do not incorporate air into the mix.

Do not mix partially under any conditions and do not mix the components manually. In order to ensure proper and complete chemical reaction, mix the

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whole kit and use a slow speed drill fitted with a suitable paddle for mixing.

Application:

The mixed grout should be poured only from one side of the formwork to eliminate the entrapment of air. This can be achieved by pouring the grout across the shortest distance. While pouring, maintain a constant head preferably of at least 15 cm on the side where the grout has been poured. Allow 10 cm clearance between the side of the form and the base plate of the machine.

The mixed material must be used within the specified pot life. After this time, the unused material will start to stiffen and should be discarded.

Standards:

- EN 1504-6
- ASTM C579, C580, 307, C1181, C531, D695, C882, C1339

Consumption/Yield:

EPOCRETE GP achieves 15.0 liters of wet mixed grout per 30 Kg. set.

Packaging:

The product supplied in 3 packs containing base, hardener, and filler in 30 Kg. kit.

Storage:

Keep the product in dry, covered conditions at 25°C. Protect from direct sunlight and extreme temperature.

Shelf Life:

EPOCRETE GP can be utilized within 12 months from date of manufacturing if stored in an unopened container as recommended.

TECHNICAL PROPERTIES

Density	2.00 ± 0.03 kg/cm ³
Potlife time @25°C	45 minutes
Compressive Strength @7 days (ASTM C579)	>80.0 N/mm ²
Flexural Strength @7 days (ASTM C580)	>25.0 N/mm ²
Tensile Strength @7 days (ASTM C307)	20.0 N/mm ²
Effective Bearing Area	>85%
Compressive Modulus (ASTM D695)	16 GPA
Thermal Expansion Coefficient (ASTM C531)	2.6 x 10 ⁻⁵ mm/mm/°C
Linear Shrinkage (unrestrained)	0.017%
Creep, 400 psi, 60°C (ASTM C1181)	4.1 mm/mm
Chemical Resistance	Excellent to oil grease, mild acid, alkalis, water, most industrial chemicals
Water Penetration (EN 12390)	NIL
Minimum Grout Depth	10 mm
Maximum Grout Depth	300 mm

*Values indicated may vary depending on the environment and conditions of the material. Figures given are tested according to standard laboratory conditions.

Cleaning:

All tools and equipment should be cleaned immediately after use with ARMOSOLVENT. Hardened material can only be removed mechanically.

Remarks:

- Do not apply where ambient temperatures are below 5°C.
- Partial mixing of the product components should not be allowed under any conditions.
- EPOCRETE GP can be used for thick section applications.

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- Extra care should be taken when applying at high temperature as pot life of the mixed product will shorten dramatically.
- It is recommended to shade the working area while mixing and placing EPOCRETE GP. Tools should be kept in shade, prior to use.

Health and Safety:

- Avoid contact with eyes and skin. Wear suitable protective clothing such as coveralls, goggles, dust mask and gloves. Use barrier cream. Ensure that there is adequate ventilation. Do not breathe vapour or spray mist.

FIRST AID:

- Eyes: In the event of accidental splashes, flush with warm water and seek medical advice.
- Skin: Wash skin thoroughly with soap and water
- Inhalation: Remove to fresh air, keep patient rested
- Ingestion: Do not induce vomiting. Seek immediate medical attention.

For further safety information, please refer EPOCRETE GP Material Safety Data Sheet.

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