

ATECH PLUS

Grouting Solutions

EPOGROUT QF2

Low Exotherm, Deep Pour, High Performance Epoxy Grout

Description

EPOGROUT QF2 is a three component, high performance epoxy grout. It is designed to exhibit low exotherm during curing enabling it to be used in deep pours up to 450mm.

Use

It is recommended for:

- Grouting machinery base plates
- Grouting rails
- Grouting anchor bolts
- Repairing damaged concrete

Typical Applications

- Foundation grouting of base plates
- Rail track anchoring and grouting
- Steel & concrete columns/structures grouting
- Structural anchoring of bolts, dowels and re-bars Machinery subject to dynamic movements eg: pumps, gear boxes, compressors and generators
- General grouting in corrosive environments

Features & Benefits

- Low heat generated during cure making it suitable for deep pours up to 450 mm.
- Low shrinkage allows final levelling of machine base plate before grouting.
- Long pot life for easy handling and placement
- High compressive strength.
- Excellent Creep resistance ensuring it maintains its multi-dimensional support under constant load.
- Variable flow capability – can fill gaps from 60 mm to 450 mm.
- Pre-packaged aggregate – optimum design flowability for deep pour.
- Excellent adhesion to concrete and steel.
- Chemical resistant – resistant to a wide range of chemicals.
- Faster curing and higher strength than cementitious grouts.

Physical Properties (@25°C, 50% RH)

Pot Life:	2 hrs
Cure Time:	Foot Traffic - 24hrs Full Cure - 7 Days
Mix Ratio by weight: (Resin:Hardener)	2:1
Compressive Strength: (ASTM D 695-96)	- 7 day: 79MPa - 28 day: 85MPa
Compressive Modulus:	8297MPa
Tensile Strength:	20MPa
Creep (ASTM C1181-00):	0.013mm/mm

Application Guidelines

The resin, hardener and aggregate of EPOGROUT QF2 need to be conditioned to a temperature between 18°C and 30°C before grouting. The grouting area needs to be protected from cold, hot and wet conditions before grouting start and for at least 24 hours after grout placement.

Surface Preparation

- Concrete shall be fully cured for a minimum of 28 days and with a compressive strength of 25MPa and surface tensile strength of 2.0MPa minimum.
- Remove surface laitance, contaminants, coating, curing compound and all weak and loose materials.
- Roughen concrete surface by Chipping, Diamond Grinding, Scarifying or Grit Blasting to provide the appropriate surface profile for optimum bonding. 50% of the surface should be exposed aggregate.

If the grout will extend out horizontally beyond the machinery base by more than about 25cm then edge lifting may become an issue. If this is the case there are a number of ways to combat it including installing dowels.

Base Plate Preparation

- Base plate surfaces that will be in contact with the grout should be sand-blasted to white metal surface. No oil, grease.
- The plate can be coated with an epoxy primer if the grouting is not happening immediately. If left for more than a few weeks then the surface should be prepared again.
- Sharp edges in contact with grout should be rounded reduce stress concentration in the grout. Sharp edges can result in stress cracks in the grout.

Form Work

- Use good quality form material and ensure it is strong and leak proof. Any gaps should be sealed with an appropriate material such as silicone sealant. The forms should be coated multiple times with a grease or floor wax to aid removal after curing.
- Forms should rise about 25mm above the base plate to contain the flowing grout. Forms at the sides of the plate should be placed at about 40mm from base plate edge.
- Forms at the grout entry and exit ends should be placed at least 75mm out to allow room for flow and manoeuvring. To aid the placement of grout under sizeable base plates it is beneficial to use a moveable header box. This controls the flow of grout and directs it forward under the machine while minimising the incorporation of air. It should be slanted away at an angle of 45°.
- When grouting long sections it is recommended to install expansion joints. This reduces the chance of cracks, due to differences in linear thermal expansion and contraction between the grout and concrete.

Mixing

- Mix EPOGROUT QF2 liquid components (resin and hardener) together using a slow speed power mixer at a speed of approximately 250 rpm until the mix become homogeneous (2 minutes).
- Add the resin mix to a mortar mixer, add the aggregate and mix at approximately 25 rpm until all aggregate has been wetted.
- Avoid over mixing as this will increase air incorporation.
- The amount of aggregate can be reduced slightly to increase the flow in cold conditions or where application requires. The aggregate must not be reduced by more than 15% since it will adversely affect the properties and increase the likelihood of a resin rich layer at the surface.

Placing Of Grout

- Grout should be placed immediately after mixing.
- Check for any leakage regularly. Leakage can cause voids.

Clean up

Xylene can be used for cleaning tools and equipment before the mixed compound begins to harden.

Safety Precautions

- Wear gloves, eye protection and overalls during mixing and application.
- Ensure there is adequate ventilation and avoid breathing the vapour.

Packaging

Kit size Colour Packs Required

89.9 kg N/A

The mixed product will yield 40 Lt.

Shelf Life

EPOGROUT QF2 has a shelf life of 12 months from date of manufacture if stored under shelter and at 25°C in original un-opened container.

Field Support

Field support where provided, does not constitute supervisory responsibility. Suggestions made by ATECH either verbally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they and not ATECH are responsible for carrying out procedures appropriate to a specific application.

Customer Responsibility

The technical information and application advice given in this publication is based on the best information available at time of print. As the information herein is of a general nature, no assumption can be made as to the products suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by Commonwealth or State Legislation. The owner, his representative or the contractor is responsible for checking the suitability of products for their intended use.

Safety Precautions

Epoxy products may cause allergic reactions through skin contact, goggles, protective gloves and overalls must be worn. Ensure that there is adequate ventilation and avoid breathing the vapour.

Exclusion Clause

1. The information contained in this data sheet is based on many years experience and is correct to the best of our knowledge. ATECH will be under no liability whatsoever whether in:
 - a) Contract or tort (including, without limitation, negligence)
 - b) Breach of statute
 - c) Any other legal or equitable obligation other than the quality of the product at the time of despatch.
2. Any queries about specification use or application should be directed to our technical service department immediately.
3. This exclusion clause does not operate to exclude any warranty that by law may not be excluded.



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