



PFI DATA SHEET

HIGH PERFORMANCE
EPOXY GROUT

DESCRIPTION

HYCHEM PF1 is a proven high strength epoxy based grouting product, offering a unique combination of features and benefits. The product has low exotherm during curing; reducing possible shrinkage effects yet develops high compressive strength, even at low temperatures. It is designed for grouting gaps ranging 10 mm – 40 mm.

The range of potential uses for these systems is extremely wide, due to the fact that the flow and curing performance can be easily modified directly at the point of use. PF1 is designed to be specified when fast mechanical strength development, long term non shrink performance, high chemical resistance and excellent dynamic load response are important.

USE

PF1 is suitable for the foundation grouting of machinery base plates, rail grouting or under column grouting typically found in new construction work or new machinery installation and alignment. It is particularly suitable for grouting dynamic machinery such as pumps, compressors, gearboxes and generators.

PF1 is also suitable for grouting bolts, rebar, dowels and inserts in concrete, rock and brickwork. The pull-out performance and durability of all mechanical inserts and anchors are maximised, since epoxy grouts exhibit 2 to 4 times the compressive strengths and 10 times the tensile strength of concrete.

TYPICAL APPLICATIONS

- › Food & Beverage production facilities
- › Heavy manufacturing
- › Water treatment plants
- › Power stations
- › Wharves and Ports
- › Chemical Plants

FEATURES & BENEFITS

- › Very high mechanical strength – compressive, tensile and flexural.
- › Early development of strength.
- › Low exotherm.
- › Resistant to a wide range of chemicals.
- › User friendly – simple mix ratio, good flow and long pot life.

Although PF1 is designed for pours in the range 10 - 40 mm it can easily be modified on site for pours up to 80 mm. If this is a requirement then contact the technical department at Hychem.

PHYSICAL PROPERTIES (@ 25°C, 50% RH)

- › **Solids content:**
100%
- › **Pot life:**
45 mins
- › **Cure time:**
Foot Traffic = 24 hrs
Full Cure = 7 days
- › **Hardness (ASTM D2240):**
75 Shore D
- › **Tensile strength (ASTM D412):**
29 MPa
- › **Compressive strength (ASTM D695):**
105 MPa
- › **Flexural strength:**
40 MPa
- › **Adhesion to concrete:**
Concrete failure

CHEMICAL RESISTANCE

Epoxy grouts have excellent resistance to acids compared to cementitious grouts and are often chosen for grouting in mines and chemical plants. PFI is also resistant to oils, fats, petrol, water and alkalis.

APPLICATION GUIDELINES

Surface Preparation

Sub-Base Preparation

Ensure foundation concrete is properly cured. All surfaces should be clean and free from rust, dust, oil, wax, grease and standing water. Concrete should be scabbled if necessary to remove any weak, crumbly materials. Formwork should be treated with release agent where required. The foundation should be shaded from direct sunlight to prevent build up of excessive temperatures.

Plate and Equipment Preparation

The bonding surfaces of the base plate to be grouted should be free of coatings, wax, grease or scale. Wax or mask all external areas likely to be affected by rising grout.

Forming

Forms must be liquid tight and ideally should have a moveable head sloped at 45° to enhance grout placement. The top of the form must be a minimum of 18 mm above the equipment being grouted; edges should be a minimum of 25 mm from each base plate.

Mixing

The resin is mixed with hardener at the designated mix ratios. Mix mechanically at 400 rpm for approximately 2 minutes then scrape down sides and continue mixing for a further 1 minute. Ensure both components are thoroughly mixed together before placement. The product must be mixed slowly to minimize the incorporation air.

Applying

Pour mixed materials slowly into the prepared void from one side only and fill the cavity continuously to avoid air entrapment.

PACKAGING

Kit size	Colour Packs Required
4 Lt	N/A
8 Lt	N/A
16 Lt	N/A

SHELF LIFE

This product has a shelf life of 12 months from date of manufacture, stored under shelter at 25°C in original un-opened container.

HYCHEM EPOXY GROUTS

PF1 is one product in the Hychem epoxy grout range. E200 and E250 compliment the range and with these three products it is possible to service grouting applications with thickness's ranging from < 1 mm to > 400mm.

Epoxies generate heat as they cure and as grout jobs can require large volumes in a single pour the potential for significant heat development exists. It is therefore important to select the correct product for your application.

Please contact Hychem for any assistance required.

DISCLAIMER

The technical information and application advice given in this publication is based on the best information available at the time of print. As the information herein is of a general nature, no assumption can be made as to the product 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.



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