



HYCHEM
EPOXY SYSTEMS

HYGROUT 270

High performance epoxy grout

HYGROUT 270 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 10mm – 50mm.

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. HYGROUT 270 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

HYGROUT 270 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.

HYGROUT 270 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.

FEATURES AND 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 HYGROUT 270 is designed for pours in the range 10-50mm it can easily be modified on site for pours up to 80mm. If this is a requirement then contact the technical department at Hychem.

TYPICAL APPLICATIONS

- Food and beverage production facilities
- Heavy manufacturing
- Water treatment plants
- Power stations
- Wharves and ports
- Chemical plants

PHYSICAL PROPERTIES (20°C)

Solids content	100%
Pot life	45 mins
Cure time	24 hours

PERFORMANCE PROPERTIES

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. HYGROUT 270 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 degrees to enhance grout placement. The top of the form must be a minimum of 18mm above the equipment being grouted; edges should be a minimum of 25mm 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

- 4 Litre
- 16 Litre

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

HYGROUT 270 is one product in the Hychem epoxy grout range. HYGROUT 200 and HYGROUT 210 compliment the range and with these three products it is possible to service grouting applications with thickness's ranging from <1mm 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.

Field support

Field support where provided, does not constitute supervisory responsibility. Suggestions made by HYCHEM either verbally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they and not HYCHEM 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 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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