ROCKBOND
MAKING CONCRETE STRONGER

RB 8.21

TECHNICAL DATA SHEET

QUAKEBOND 821 EPOXY GROUT

High Strength Epoxy Grout for Seismic Strengthening Applications.

DESCRIPTION

Quakebond 821 Epoxy Grout is a three component – resin-hardener-filler system, designed for use in seismic strengthening and civil construction applications where a high strength, free flowing, cost effective epoxy grout is required. Quakebond 821 provides superior adhesion, high compressive strength, and excellent resistance to dynamic loads, making it ideal for securing structural elements, machinery bases, and critical infrastructure in earthquake-prone areas. Its fast curing and chemical resistance ensure long-term performance in demanding conditions.

SPECIAL PROPERTIES

- Achieves high early strength, surpassing the tensile and flexural strength of concrete.
- Ensures strong adhesion to concrete, steel reinforcement, anchor bolts, and bearing plates.
- Provides excellent resistance to chemical exposure, including dilute acids, alkalis, saltwater, and sewage.
- Offers easy application with very good flow properties.
- Highly resistant to impact and continuous vibration.
- Can be efficiently pumped or injected using appropriate equipment..

USES

Quakebond 821 Epoxy Grout is highly effective in various applications, particularly in the following uses:

- Seismic strengthening applications
- Grouting rebar into slab chases
- Grouting between steel pile jackets and concrete piles.
- Filling cavities and voids in concrete
- Anchoring steel reinforcing bars into concrete
- Grouting beneath machine bases and bridge bearing plates

SURFACE PREPARATION

Thoroughly clean all surfaces ensuring they are free of all dirt, dust, oil etc. If necessary, remove any cement laitance by scabbling or sandblasting the surface. The surface shall be free of any standing water. To all steel surfaces remove all rust, oil, grease or any paint film by grit blasting. Preparation of steel surfaces must be done just before application of grout.

MIXING INSTRUCTIONS

Add the entire contents of Component A (QB821R) and Component B (QB821H) and mix together with a mixer attached to a slow speed electric drill until fully blended, then slowly add Component C (blended silica sands) while mixing until a lump free and uniform pourable grout is achieved. The mixing ratio by volume of components A:B:C = 2:1:3. When cavity to be grouted has less than 10mm clearance, quantity of Component C can be reduced by up to 50%.

CLEANING

Tools and equipment should be cleaned immediately after use with "MEK" solvent or "Esol" blended solvent.

PACKAGING AND SIZE

Quakebond 821 Epoxy Grout is available in 25ltr, 51ltr, 510ltr and 1,020ltr kit sizes. These kit sizes are the true yield of the epoxy grout once mixed.

APPLICATION PROCEDURE

Apply Quakebond 821 Epoxy Grout directly into the prepared formwork, chase, hole, or void, allowing it to self-level. Ensure all formwork is sealed and watertight.

For grouting reinforcing rods, railing posts, or anchor bolts, pour enough epoxy grout into the hole so that when the bar, post, or bolt is inserted, a small overflow occurs at the top.

When grouting under base plates or bearing pads, maintain sufficient head pressure to ensure continuous flow until the void is completely filled and the grout rises above the plate level. To prevent air entrapment, use vibration or rodding, or install breather pipes in the formwork.

This product may be affected by extreme cold temperatures below 8°C and extreme heat temperatures above 30°C. Please contact the Rockbond Technical Team if you have any queries.

IMPORTANT NOTE

When pouring Quakbond 821 Epoxy Grout in enclosed horizontal applications, it is important to reduce air entrapment. QB 821R Resin contains an air release agent however it is important to mix using a low speed drill with paddle designed to reduce air entrapment (i.e. non-helical). Pre-mixing QB 821R Resin with the filler at least an hour before adding QB 821H hardener is also beneficial for these types of applications. Further once all components are mixed allowed to stand for 10 minutes prior to pouring to allow any entrapped air to escape.

HEALTH AND SAFETY

When handling or mixing Rockbond Epoxies use common sense safety practices. To help prevent health problems refer to the Material Safety Data Sheets (MSDS) for detailed product safety information.

TECHNICAL DATA

Compressive Strength:	100 MPa
Flexural Strength:	>30 MPa
Tensile Strength:	>18 MPa
Bond Strength	
– Sandblasted Steel:	20 MPa approx.
– Concrete:	3 MPa approx (until concrete fail)
Application Thickness:	2mm Minimum/ 100mm Maximum
Pot Life (20°C):	90 minutes of fluid epoxy.

Yield: A 51 litre kit yields 51 litres of fluid epoxy grout.
Temperature Range: Refer to notes under Application Procedure

TECHNICAL INFORMATION

Should you have any queries, or require further information, please contact our **Technical Sales Team: +64 4 568 5401**