

Epoxy Grout

DESCRIPTION

Epoxy Grout is a two component; high performance pre-filled 100% solids epoxy, suitable for use as a pourable grouting material.

FEATURES AND BENEFITS

- High flow properties
- Bonds to damp substrates
- Rapid hardening and strength gain
- High chemical resistance
- Pre-measured kits for ease of use
- High tensile and compressive strength
- Excellent adhesion to most substrates
- Cures at temperatures down to 5⁰C
- Negligible Shrinkage
- High mechanical strength
- Solvent free

RECOMMENDED USES

As an epoxy grout for the following structures:

- Grouting heavy duty supports beneath crane or transporter rails
- Machine support and baseplates
- Anchoring bolts, bars, and fixings
- Filling in holes and cavities in concrete
- Grouting of bridge bearings
- As a high strength repair mortar when mixed with selected aggregates.

PERFORMANCE PROPERTIES

Appearance	Resin	Beige flowable liquid
	Hardener	Clear flowable liquid
Viscosity	400-700 cps	
Flammability	Non-flammable	
Solids Content	100%	
Chemical Resistance	Excellent	
Tensile Strength	30MPa	
Compressive Strength	100MPa	
Flexural Strength	25MPa	
Tensile Bond Strength	10MPa	
Modules of Elasticity	Approx 4.5 x 10 ³ MPa	
Service Temperature	-10 ⁰ C to +70 ⁰ C	
Heat Distortion Temperature	80 ⁰ C approx.	
Hardness	>80 Shore D	
Pot Life	45-50 min @ 25 ⁰ C	
Tack free time	1.5-2.5 hours @ 25 ⁰ C (1kg mass)	
Mix ratio	5:1 by volume	
Specific Gravity	1.4kg/litre	
Water Absorption	<0.20% (10 days @ 25 ⁰ C	
Full cure	Seven days @ 25 ⁰ C	

STRENGTH

Strength	Filled	Unfilled
Tensile	14MPa	45MPa
Compressive	70MPa	100MPa
Flexural	24MPa	50MPa

CHEMICAL RESISTANCE

Substance	Rating
100% Citric Acid	Excellent
10% Acetic Acid	Excellent
50% Sodium Hydroxide	Excellent
Petrol/Diesel	Excellent
Sugar Solutions	Very Good
100% Tartaric Acid	Very Good
Hydrocarbons	Very Good
Phosphoric Acid	Very Good

PACKAGING

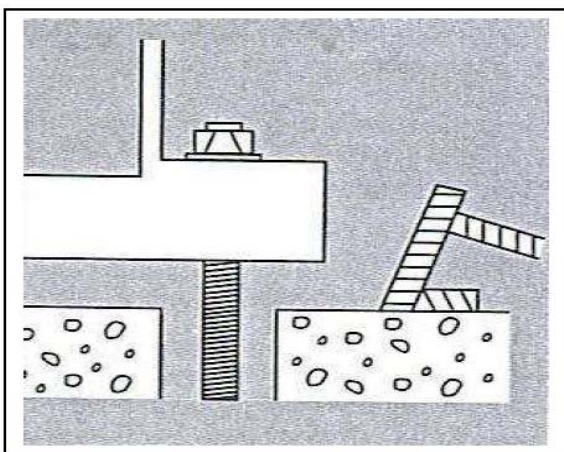
Epoxy Grout is available in both a 10 and 16 Litre Kits.

SURFACE PREPARATION

- All surfaces that will be in contact with *Epoxy Grout* must be free from oil, grease, free standing water and loose or broken concrete.
- Mechanically roughen or sand all smooth surfaces. Steel formwork should be free from rust and mill scale.

FORMWORK

- The form work used should be of a sound and robust material. The forms shall be constructed to be leak proof to ensure all gaps are completely sealed.
- The formwork shall be constructed so that adequate head can be maintained during the filling process.
- Install adequate vent holes or bleed hoses to ensure no air is trapped.
- One side of the formwork should be constructed to allow the filling side to be higher than the void to be grouted.



Formwork Diagram

MIXING

- The mixing ratio is 5:1 by volume, 5 parts "Part A" and 1 part "Part B".
- Formwork should be prepared and assembled before mixing commences.
- The entire contents of the Hardener (Part B) should then be poured into the base (Part A), and the two materials should then be thoroughly mixed using a suitable slow-speed drill and high shear mixing paddle.
- Mix for two minutes until a uniform colour is obtained, the side of the mixing can should be scraped into the mix and the material shall be mixed for a further two minutes.

PLACING

- Epoxy Grout should be applied as soon as the mixing process has been completed.
- The mixed *Epoxy Grout* should be placed by pouring from one side only so as to avoid the entrapment of air.
- A continuous grout flow is essential; therefore sufficient grout must be available prior to starting the installation.

Machine Base Plates and Crane Rails:

- An adequate head must be maintained at all times to ensure a continuous flow.
- The grout must be poured until the grout rises above the plate.
- As a rule of thumb at no time should the grout head fall below 75mm above the plate.

Anchor Bolts and Dowels:

- Into prepared and well cleaned preformed hole, fill with *Epoxy Grout* and then place bolt or dowel centrally in the grouted hole.

THICKNESS

The suitable thickness and required head depends on clearance, the distance of flow, the ambient and substrate temperatures and the overall size of the pour. (see general guideline below)

Note: The typical thickness range of *Epoxy Grout* is 5 – 60mm. If greater thicknesses are required the grout can be bulked out using graded aggregates.

Temperature	Gap Width	Head	Max. Flow Distance
5 °C	15mm	100mm	420mm
	40mm	100mm	900mm
20 °C	15mm	100mm	840mm
	40mm	100mm	2050mm
35 °C	15mm	100mm	950mm
	40mm	100mm	2400mm

This table is a guide only. Variations may occur based on the porosity of the substrate and climate conditions.

TEMPERATURES

Low temperature:

The minimum application temperature is 5°C. In temperatures below 10°C, the separate components should be heated in warm water (up to 25°C) or stored in a temperature controlled environment for 12 hours before use.

High Temperature working:

At ambient temperatures above 30°C, the material should be stored in the shade or in air conditioned environment for 12 hours before use.

CLEAN UP

Clean up uncured material and equipment immediately after use with toluene or xylene. Do not use solvents on skin.

Cured *Epoxy Grout* is difficult to remove via chemical means, therefore mechanical grinding or abrading may be required.

PRECAUTIONS

- Do not apply *Epoxy Grout* to surfaces standing in water.
- Only mix the required amount of material needed for the intended profile and pot life (45 – 50 minutes @25°C).
- Do not dilute *Epoxy Grout* with solvents as this will severely affect the ultimate performance of the product.
- New concrete must be a minimum of 28 days old before installing *Epoxy Grout*.

STORAGE

Store between 10°C and 30°C away from direct sunlight.

Shelf life is up to 12 months in original unopened container.

FIRE

Product is non-flammable and poses no fire risk.

HEALTH & SAFETY

- Some people are sensitive to epoxy resin. Gloves and protective goggles must be worn during application and use.
- Avoid contact with skin, eyes and avoid breathing its vapour.
- Wear protective gloves when mixing and using.

HEALTH & SAFETY (Cont.)

- If poisoning occurs contact a doctor or Poisons Information Centre.
- If swallowed, do not induce vomiting. Give a glass of water.
- If skin contact occurs remove contaminated clothing and wash skin thoroughly for a minimum of 15 minutes.
- If in eyes hold eyes open, flood with water for at least 15 minutes and see a doctor.

For more detailed information refer to the Material Safety Data Sheet

Please Note:- The information given in this data sheet is based on our current knowledge of the product when properly stored, handled and applied. We cannot guarantee that the product will be suitable, effective or safe when used for any purpose other than its stated uses.

To the extent that it is lawful, we exclude warranties implied by law and limit our liability to the cost of replacing the product. We accept no responsibility for loss or injury caused by improper use, incompetent preparation, inexpert or negligent application, or ordinary wear and tear.

Service or advice given by our staff should not amount to responsibility for the project - since the owner, or their contractor (and not River Sands), is responsible for procedures relating to the application of the product.



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