

Epoxy Plus

High strength chemically resistant grouts

Pourable Grout Standard and Fine Grade

About this product

Epoxy Plus Pourable Grouts are specially formulated from epoxy resin and graded aggregates producing materials with exceptional toughness, chemical resistance, good flow characteristics and negligible shrinkage.

Uses

Epoxy Plus Pourable Grouts Standard and Fine Grade find a wide application in the grouting in of bearings, manhole frames, starter bars, dowels, balustrading, crane rails, machine baseplates, setting in bolts, fixing runway lights and situations where tight clearances add to the difficulties of obtaining secure fixings.

Features and benefits

- Capable of withstanding high dynamic loads.
- High compressive and tensile strength.
- Very good chemical resistance.
- Cures within the temperature range 5°C to 35°C.
- Light stable.
- Negligible shrinkage factor allows them to be used for underplate or rail grouting, where the grout remains in contact with the underside.
- Can be placed in much thinner sections than cementitious grouts resulting in cost savings.

Typical properties

All tests carried out at 20°C

Strengths	Standard Grade	Fine Grade
	N/mm ²	N/mm ²
Compressive (BS 6319 pt2)	1 day 79 7 days 85	52 70
Flexural (BS 6319 pt3)	1 days 23 7 days 28	25 35
Tensile (BS 6319 pt7)	7 days 15	16
Tensile adhesion to abraded steel	7 days 12.5	14.5
Flow (CEN 104-845-2)	63mm	55mm
Flow (CEN flow trough)	260mm in 30sec 410mm finally	240mm in 30sec 380mm finally

Chemical resistance - both grades

Epoxy Plus Pourable Grouts are shown to be unaffected by a wide range of acids, alkalies and industrial chemicals.

The results of immersion at 20°C to a typical range of chemical solutions and solvents are:

Caustic Soda	20%	Unaffected
Hydrochloric Acid	20%	Unaffected
Sulphuric Acid	20%	Unaffected
Detergent		Unaffected
Patrol & Oil		Unaffected

Pot life or working time

Temperature	Standard Grade	Fine Grade
Below 5°C*	Do not apply	Do not apply
5°C	5 hours	5 hours
10°C	4 hours	3 hours
20°C	1 hour	1 hour
35°C	30 minutes	40 minutes
Over 40°C	Do not apply	Do not apply

* For conditions below 5°C a special winter grade grout is available, please contact our Technical Department.

Surface preparation

It is essential to remove all grease, oil, dust and other loose materials.

a) Concrete

Concrete substrates must be adequately prepared either by use of a suitable mechanical method such as scabbling, grit blasting or needle gunning, or by such other means as appropriate. Concrete bases for bearing grouts must be carefully prepared to give a clean freshly exposed surface.

Old concrete surfaces contaminated with oil or grease require suitable preparation such as steam cleaning in conjunction with a suitable detergent. Care must be taken to ensure that the oil or grease is removed from the surface and not simply spread over a larger area.

Surface to which epoxy grouts are to be applied must be dry.

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b) Steel surfaces

Steel surfaces should first be grit blasted to Swedish Standard Specification SA2½ followed by degreasing with a suitable solvent immediately prior to bonding. However, in many instances where corrosion is absent wire brushing to a clean bright surface may be adequate. Where a proprietary coating system has been applied to steel bearings, the bond between this and the epoxy grout cannot be assured. In these cases the engineer may decide that a potentially unbonded surface may be acceptable.

Application

Mixing

A forced action mixer is recommended for mixing the pack.

First, the resin should be emptied from the can into the mixer drum, then the hardener added and mixed in until an even consistency and colour is achieved. This is followed by the slow and continuous addition of the filler until the whole mix is of uniform consistency and colour.

Care should be taken not to entrain excessive air into the grout during mixing.

Pouring

This can be either from the side or through centre holes in the plate using a large (2 litre) funnel. To achieve an even flow, maintain a head of at least 150mm.

Pumping

Pumping is best using a peristaltic pump and we can recommend the purchase or hire of suitable pumps. When pumping place the end of the hose in the centre of the plate so the grout radiates from the centre. When the grout has reached the far side start to withdraw the hose very slowly to avoid forming air pockets.

Cleaning

Before materials set tools and the mixer drum can be

Shelf life and storage

The shelf of Epoxy Plus Pourable grouts is in excess of 12 months if stored in cool, dry, frost free conditions.

Packaging and yield

Epoxy Plus Pourable Grouts, Standard Grade and Fine Grade are both three components pack comprise of resin, hardener and specially selected filler.

Both grades are supplied in 25kg pack.

Standard Grade yield 12.75 litres and suitable for gap sizes between 15mm and 75mm.

Fine Grade yield 14.0 litres and suitable for smaller gap sizes between 5mm and 25mm.

Health and safety

All skin contact with epoxy resin products should be avoided. Operatives are advised to use barrier creams and protective clothing including gloves and goggles. More detailed information is given on the packs. For further details on safe handling please refer to the Material Safe Handling Guide.

The hardener content is alkaline and labelled as corrosive. The resin content is labelled as an irritant. The flash point of all components exceeds 100°C. In the event of fire use

Quality assurance

A policy of strict quality control has always been followed and the requirements of all relevant test standards are strictly adhered.

Technical service

We can provide technical service at the specification stage and/or during application through our Technical Department or Laboratory. Detail specification or further information can be provided for specific projects or more general works. Site visits and on-site demonstrations can be arranged on request.



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To the best of our knowledge and belief, the information contained in this leaflet is true and accurate, but as conditions of use and any labour involved are beyond our control, the end user must satisfy himself by prior testing that the product is suitable for his specific application, and no responsibility can be accepted, or any warranty given by our Representatives, Agents or Distributors. Test results shown reflect typical figures based on laboratory testing under

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