

EPIGROUT S

HIGH PERFORMANCE, HIGH STRENGTH, FLUID EPOXY GROUT

DESCRIPTION

Epigrout S is a two component, high performance, pre filled epoxy grout, suitable for use as a pourable or fluid grouting material. Aftek F4 and F6 fillers may be added to produce a trowellable high build mortar or a pourable flowable grout for deep pour applications. Can be applied underwater and is chemical resistant to seawater.

FEATURES

- High flow properties
- Bonds to damp substrates
- Rapid hardening and strength gain
- High chemical resistance
- Pre-measured kits make for ease of use
- High tensile and compressive strength
- 100% solid epoxy
- Excellent adhesion to most substrates
- Cures at temperatures down to 5°C
- Negligible shrinkage
- High mechanical strength
- Solvent free
- High early strength
- Suitable for underwater application

RECOMMENDED USE

- Suitable for use on damp substrates
- Grouting heavy duty supports beneath crane and transporter rails
- Anchoring bolts, bars and fixings
- Bonding new to old concrete
- Adhesive promoter
- Filling in holes, cavities
- Repairing cracks in horizontal surfaces
- Grouting off column bases
- As a high strength repair mortar when mixed with Patchfix Filler
- As a protective coating for concrete and steel structures
- Reinforcement bar primer
- Corrosion protection on steel reinforcement prior to application of concrete repair mortar
- Grouting from 5mm to 120mm in a single application or (120mm - 300mm with Epilox F6

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Clean the surface and remove dust, unsound material, plaster, oil, paint, grease, corrosion deposits or algae. Roughen the surface and remove laitance and expose aggregate by light scabbling and grit blasting. Oil and grease deposits should be removed by steam cleaning, detergent scrubbing or the use of proprietary degreaser. All residual ponding water must be removed; the substrate may be moist but not wet. All anchor bolt holes must be free from water and debris prior to placing of Epigrout S. Steel surfaces such as reinforcement bars should be grit blasted or scabbled to remove any corrosion.

MIXING

The mix ratio is 4:1 by volume, 4 parts Part A and 1 part Part B by volume. Any steel reinforcement and formwork should be prepared, cut to size and shape and made ready for assembly before mixing commences. Care should be taken to ensure that Epigrout S is thoroughly mixed. The hardener and base components should be stirred separately before mixing to disperse any settlement. The entire contents of the hardener (Part B) tin should then be poured into the base (Part A) tin and the two materials thoroughly mixed using a suitable slow speed drill and high shear mixing paddle. Mix for 2 minutes until fully uniform colour is obtained, the sides of the tin should be scraped, mixing should continue for a further 2 minutes. To facilitate mixing and application at temperatures below 10°C, the separate components should be warmed in hot water up to a maximum temperature of 25°C before beginning to mix. If heated to 25°C, the subsequent mixed material will need to be used more speedily as the pot life will be reduced. Alternatively, the material should be stored in an environment controlled to 20°C and only removed immediately before use.

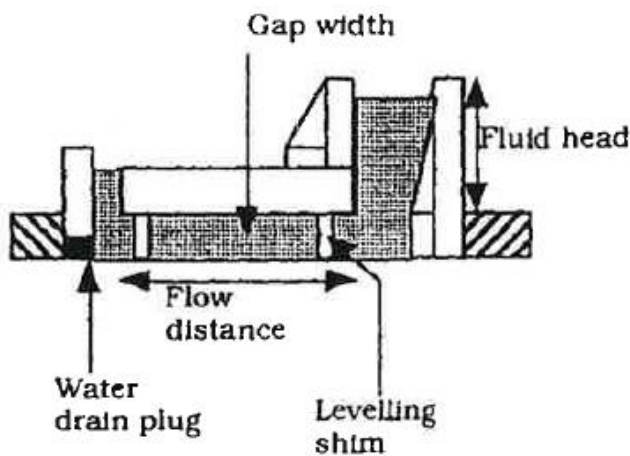
Do not attempt to rework or re-temper any partially set product. NB: Liquid epoxy grout will be exothermic and set prematurely if not used within the pot life.

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APPLICATION INSTRUCTIONS

APPLICATION BY POURING INTO FORMWORK

This method is commonly used for base plate installation where intimate contact between the grout and base plate is essential to the operation of the equipment being installed. Ensure the formwork is liquid tight before by testing with water where possible, allow for provision of drain plugs to remove all water prior to grouting. Use silicone sealant or other mastic to seal up the joints in the boxing. See typical formwork detail below –



Place the mixed Epigrout S in the reservoir and maintain the level of liquid by topping up the grout. Do not allow the level in the header box to fall below the bottom of the base plate. Ensure all formwork, shims etc., are greased or coated with Stripfoam prior to grouting. NB: Hardening grout can only be removed by grinding.

Epigrout S is suitable for pumping. Where Epigrout S is used as an anchoring grout, it may be poured or pumped directly into the prepared hole in the concrete prior to placing the fixing.

COVERAGE

One litre will cover 1m² at 1mm thick. Epigrout S can be used as an epoxy bonding agent for new and old concrete the coverage rate is 4-5m² / litre.

IMPORTANT NOTES

Epigrout S when mixed in large volumes, greater than 10 litres is highly likely to cure faster reducing the pot life of the mixed material in the tin.

Low temperature working: 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. These measures will facilitate mixing and application. Normal precautions for winter working with epoxy materials should be adopted.

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

Do not dilute Epigrout S with solvent as this will severely affect the ultimate performance of the product.

Only mix as much Epigrout S that can be used within the lot life.

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DEEP POUR APPLICATIONS

For application requiring grouting greater than 120mm and up to 300mm – add 2 x 20kg (40kg) Epilox F6 Fillers to a 15litre kit of Epigrout S.

The yield will be approx. 32 Litres with the addition of Epilox F6 Filler:

Mix the Part A and Part B of the Epigrout S and add the contents of 1st bag of Epilox F6 Fillers ensuring uniform mixing. Add 2nd bag of Epilox F6 fillers again once again ensuring uniform mixing.

Mix for 5 minutes until a uniform mix is obtained.

NOTE: DO NOT OVERMIX AND INDUCE EXCESS AIR IN THE MIX

Grouting may be carried out at temperature between 5° and 35°.

Note that the working time and setting time are reduced at higher temperatures.

The product will exotherm and develop an increase in temperature, hence the larger the volume the greater the heat of exotherm. In low temperatures (<15°C) the grout will be slower in obtaining strength gain as the rate of achieving the exotherm will be slower.

PROPERTIES – (with the addition of F6 fillers)

Typical properties after 7 days cure at 25 °C and 50% RH.

Compressive strength	105MPa
Appearance	Part A: White thixotropic liquid Part B Black thixotropic liquid Grey when mixed
Flexural strength	30MPa approx.
Flammability	Non flammable
Viscosity	Flowable, pourable
Tensile bond strength (indirect tensile)	15MPa approx.
Hardness	>80 shore D
Tack free time	60 mins at 25°C
Min application temp.	5°C
Yield: 14L Epigrout S +20x20kg F6 Fillers	32 Litre
Full cure	7 days at 25°C

Tested to AS1478.2

Solid content by weight	100%
Heat distortion temp	80°C approx.
Chemical resistance	Very good
Tensile strength (flexural)	30MPa approx.
Modulus of elasticity	14GPa
Service temperature	-10°C to +80°C
Pot life	60 – 90 mins at 20°C
Mix ratio	4:1 (part A:B) by volume
Max. application temp.	35°C
Water absorption*	<0.2% (10 days at 25°C)
Slant shear bond strength	40MPa (substrate failure)

STORAGE AND SHELF LIFE

Store below 35°C and 5°C. Shelf life is 2 years in original unopened container.

CLEAN-UP

Clean up uncured material and equipment immediately after use using Epilox Thinners. Do not use solvent on skin. Cured Epigrout S is difficult to remove via chemical means and mechanical means may be necessary.

PACKAGING

Epigrout S is available in 3 litre and 15 litre kits. Item No 222075 (15 litre), 221035 (3 litre kit)

FIRE

Epigrout S is non flammable.

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PROPERTIES (without the addition of F6 fillers)

Typical properties after 7 days cure at 25°C and 50% RH.

Compressive strength	119MPa
Appearance	Part A: White thixotropic liquid Part B Black thixotropic liquid Grey when mixed
Flexural strength	30MPa approx.
Flammability	Non flammable
Viscosity	Flowable, pourable
Tensile bond strength (indirect tensile)	15MPa approx.
Hardness	>80 shore D
Tack free time	50 mins at 25°C
Min application temp.	5°C
Density	1.6kg / Litre
Full cure	7 days at 25°C

Tested to AS1478.2

Solid content by weight	100%
Heat distortion temp	80°C approx.
Chemical resistance	Very good
Tensile strength (flexural)	30MPa approx.
Modulus of elasticity	14GPa
Service temperature	-10°C to +65°C
Pot life	25 – 30 mins at 25°C
Mix ratio	4:1 (part A:B) by volume
Max. application temp.	35°C
Water absorption*	<0.2% (10 days at 25°C)
Slant shear bond strength	40MPa (substrate failure)

EPIGROUT S CURE TIME AT INCREASING TEMPERATURES

Results based on 40 x 40mm cubes

EpigROUT S conditioned to 20°C prior to mixing

Temp °C	1 hour compressive strength MPa	2 hours compressive strength MPa	3 hours compressive strength MPa	4 hours compressive strength MPa	5 hours compressive strength MPa	6 hours compressive strength MPa
10	0	0	7	15	27	42
15	2	7	10	18	30	55
20	25	40	72	81	88	93
25	33	45	77	85	90	100
30	45	53	82	97	101	109
35	55	64	87	104	110	114



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