

## Epicon Grout S

Epoxide Grout

### Description

Epicon Grout S is based on solvent free epoxy resins. It is one of five epoxy grouts in our range which are specified below. These cover the majority of grouting and fixing applications encountered within civil engineering and the construction industry in general, where the mechanical properties must be of the highest order. Tropical versions of the epoxy grout range are available for large pours and warmer climates. Epicon Grout S is designed to comply with the requirements of EN1504 Part 5, due to its crack injecting/gap filling applications.

### Epoxide Grout Range


- Epicon Grout RT: A pourable grout for free flow gap grouting recommended for gaps over 25mm where low Exotherm is of consideration.
- Epicon Grout L: A pourable grout for free flow gap grouting recommended for gaps 20mm to 100mm.
- Epicon Grout M: A lightly filled pourable grout for free flow gap grouting recommended for gaps between 5-40mm.
- Epicon Grout S: An unfilled grout for gap and crack widths between 0.25-6mm, also suitable for injection applications.
- Epicon Grout H: A thixotropic grout for horizontal or inverted fixings.

### Advantages

- Solvent free non-shrink system.
- Suitable for use on damp structures.
- Injection kit available to allow repairs to be completed quickly and simply.
- Will penetrate gaps of width 0.25mm to 6mm.
- Excellent performance in harsh environments.
- Good chemical and water resistance.

### Technical Information

Viscosity	1450 cps
Specific Gravity	1.09
Workable Life	20-30 Minutes
Cure Time	24 Hours
Yield	0.910 Litre/kg

 0086	
Nufins, Kingston House, 3 Walton Road, Pattinson North, District 15, Washington, Tyne & Wear. NE38 8QA 13	
0086-CPD-594215 EN 1504-5 Concrete injection product U (F1) W (3) (1/2) (5/35) (0) Intended use Allowed minimum thickness of crack Moisture state of the crack Minimum and maximum use temperature Crack movement during cure	
Adhesive bond strength	>2 MPa
Slant shear strength	Monolithic failure
Glass transition temperature	>40°C
Workability; Crack width from Moisture state of the crack	0.3mm Dry and damp
Durability	Pass
Corrosive behaviour	Deemed to have no corrosive effect
Dangerous substances	Complies with 5.4



## Technical properties of Epicon Grout S.

Properties	Standard	Performance Requirement	Declared Value
Appearance			Amber Liquid
Working time	EN ISO 9514		30 Minutes @ 20°C 55 Minutes @ 10°C 60 Minutes @ 5°C
Cure Time			24 Hours
Temperature for application			5°C to 35°C
Viscosity	EN ISO 3219		1450 cps @ 20°C
Injectability into dry medium; Percentage of the crack filled Splitting strength	EN1771	<4 minutes >90% >7 MPa	<4 minutes >90% >7 MPa
Injectability into non dry medium; Percentage of the crack filled Splitting strength	EN1771	<4 minutes >90% >7 MPa	<4 minutes >90% >7 MPa
Glass Transition Temperature	EN12614	≥ 40°C	≥ 40°C
Compressive Strength	EN12190	≥ 30 MPa	90 MPa
Tensile strength development	EN1543	>3MPa @ 72Hr	>3MPa @ 72Hr
Compressive Elastic Modulus			>2000MPa
Tensile Strength	BS6319-7		19 MPa
Flexural Strength	BS6319-3		35 MPa
Tensile Bond Strength to Concrete	EN12618-2	Substrate Failure	>2MPa Substrate Failure
Adhesion to Concrete	EN 1542	≥ 2.0 MPa	>3.0 MPa
Slant Shear Adhesion - Concrete	EN12615	Substrate Monolithic Failure	Substrate Monolithic Failure
Adhesion after thermal and wet/dry cycling	EN12618-2	< 30% reduction in strength	< 30% reduction in strength

Technical data shown are statistical results and do not correspond to guaranteed minima.

Tolerances are those described in appropriate performance standards.

1 N/mm<sup>2</sup> = 1MPa

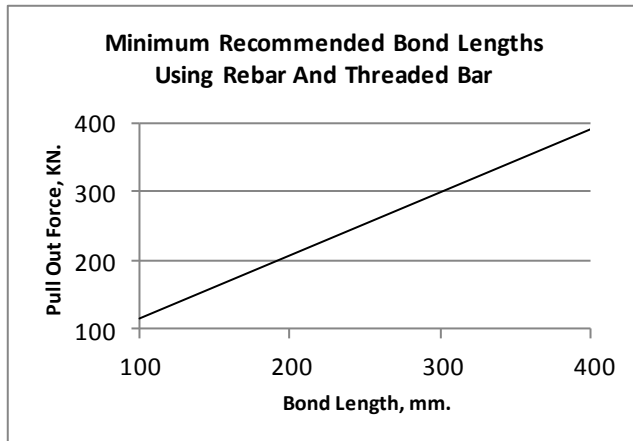
1 kN/mm<sup>2</sup> = 1 GPa



## Bond Strength Development

The bond strength of Epicon Grout S is dependent upon several factors, the main of which are:

- Strength of surrounding material.
- Method of drilling hole.
- Type of fixing.
- Resin bond length, see below.



## Surface Preparation

All surfaces should be free from chemical contamination, oil, grease and debris. Oil and grease can be removed by using *Desolve*. Concrete should be scarified or acid etched using *Chemclean* to remove any laitance. Steel surfaces should be grit blasted to remove rust and scale. All surfaces should be free from standing water.

## Mixing

The entire contents of the hardener tin should be poured into the base tin and slowly stirred using a pallet knife until the material is thoroughly mixed.

## Application Instructions

Epicon Grout S is typically poured into horizontal cracks/gaps, however it can also be used to grout in machinery, bolts etc. When grouting under machinery the grout should be poured from one side only via a feed hopper. Care must always be taken to avoid air locking. The fixings should then be left undisturbed until the material has cured. All equipment should be cleaned using Nuwash immediately after use.



## Storage

Epicon Grout S should be stored at room temperature. If stored in cold conditions the components should be warmed prior to use as this will greatly aid mixing and injection. Epicon Grout S should be stored away from foodstuffs and out of reach of children.

## Packaging

Epicon Grout S is available in 1.0kg and 5kg units, yielding 0.91 litres and 4.6 litres respectively.

## Health and Safety

Product Safety Data Sheets (SDS) are available from Nufins. SDS sheets are provided to help customers satisfy their safe handling, use and disposal needs as well as assist with any conformance requirements made locally by health and safety regulations.

SDS are continually updated to provide the latest information to our customers. We therefore recommend contacting our head office to obtain the most recent and accurate SDS before handling and using any product.

## Limitations

If injecting below 5°C contact Nufins technical department. As with all Epoxy products an exotherm will be generated, which is volume dependent.

## Technical Support

Through our technical department and laboratories we can offer a comprehensive service to specifiers and contractors. Technical contacts are available to provide additional information and arrange demonstrations.