BUILDING TRUST

PRODUCT DATA SHEET

Parex Epoxy Injection Grout

LOW VISCOSITY EPOXY INJECTION GROUT

PRODUCT DESCRIPTION

Parex Epoxy Injection Grout is a two-part, epoxy, low viscosity, injection grout formulated to be placed by free flow under gravity, or may be injected using a suitable hand or mechanical pump. The system gives rapid strength gain obtaining mechanical properties several times those of high quality concrete. The product is non-shrink enabling complete filling of the crack, fissure or void. The hardened grout is resistant to most chemicals, stable to sea water, petroleum products and resists freeze-thaw cycles.

USES

Parex Epoxy Injection Grout may only be used by experienced professionals.

- Crack injection applications.
- Filling and bonding of cracked concrete.
- Structural support where thin section grouting is required.
- Structural support where dynamic load resistance is required.
- Bonding of lifted floor toppings.

CHARACTERISTICS / ADVANTAGES

- Low viscosity.
- High mechanical strength.
- Good adhesion to most construction materials (i.e. concrete, masonry, stone, steel, wood, etc.).
- Easy to use.
- Can be placed by free flow under gravity, or injected with a suitable hand or mechanical pump.
- Suitable for grouting and sealing the narrowest of gaps (as thin as 0.1mm).
- Can be used to fill cracks, fissures and voids up to 10mm.
- Non-shrink.
- Application temperature range +5°C to +30°C.
- High early strength gain.
- Hardened grout is resistant to most chemicals, sea water and petroleum products.
- Can provide structural support where dynamic load resistance is required.
- Can be used to fill and bond cracked concrete.
- Hardened grout resists freeze-thaw cycles.
- Solvent free.
- Available in two convenient sizes: 1.13kg and 6.075kg.

PRODUCT INFORMATION

Chemical Base	Solvent free epoxide resin plus a low viscosity liquid hardener.	
Packaging	Parts A + B	1.13kg pre-batched unit
		6.075kg pre-batched unit
Shelf Life	24 months from date of production	
Storage Conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +35 °C. Always refer to packaging.	

Appearance / Colour	Part A	Transparent
	Part B	Brownish
	Part A + B mixed	Yellowish-Brownish
Density	~1090kg/m³	

TECHNICAL INFORMATION

Compressive Strength	**Age (days)**	**Strength***
	1	~60 N/mm²
	3	~70 N/mm²
	7	~80 N/mm²
	*typical values at 20°C	
Modulus of Elasticity in Compression	~3.0 kN/mm² at 7 days	
Flexural toughness	~59 N/mm² at 7 days	
Tensile Strength	~30 N/mm² at 7 days	
Shear Strength	~60 N/mm² at 7 days - Slant Shear	

APPLICATION INFORMATION

Mixing Ratio	Approximately 5:1 parts by weight	
Yield	Each 1.13kg pack will yield approximately 1 litre of mixed grout. Each 6.075kg pack will yield approximately 5.62 litres of mixed grout.	
Layer Thickness	0.1mm min. / 10mm max.	
Product Temperature	+5 °C min. / +25 °C max.	
Ambient Air Temperature	+5 °C min. / +30 °C max.	
Substrate Temperature	+5 °C min. / +30 °C max.	
Pot Life	**Temperature (°C)**	**Useable Time (minutes)***
	5	~80
	10	~45
	20	~25
	30	~10
	*typical values when product is conditioned to 20°C prior to mixing and subjected to the above ambient conditions.	

VALUE BASE

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LIMITATIONS

- Do not inject into wet or saturated cracks / voids.
- Do not apply outside of the product temperature range.
- Do not add solvents to product.
- Do not apply to cracks under hydrostatic pressure.
- Pot-life and useable life will be decreased in warmer temperatures and subsequently increased in colder temperatures.
- Do not apply if rain is due.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

Substrate surfaces along the line of the crack capping sealer (i.e. Sikadur®-31+), must be sound, clean and dry. The surfaces and gaps must be free from standing water, ice, dirt, oil, grease, coatings, laitance, efflorescence, old surface treatments, all loose particles and any other surface contaminants that could affect ad-

hesion.

SUBSTRATE PREPARATION

Ensure that grouting surfaces are free from dust and oily contamination. Small gaps may be blown out using clean dry compressed air. Steel should be free of rust and flaking mill scale. All work surfaces must be essentially dry.

MIXING

For each pack size all containers must be used to complete the mix. Pour all of the resin and hardener into a suitable mixing vessel. Thoroughly mix the components with a slow speed drill with mixing spindle for at least 3 minutes, until a homogenous clear product is achieved.

APPLICATION

Pouring Under Gravity
For supporting structures, where Parex Epoxy Injection Grout is being poured under gravity, the use of a grout-tight shutter is essential. This may be constructed from timber and sealed using a suitable sealant. Apply a suitable release agent to the formwork surfaces which will enable releasing after the grout has hardened. Alternatively, use thick polyethylene sheets. Pour the mixed material within formwork to specified levels. Allow to harden sufficiently before striking any formwork.
Crack Injection
Drill and fix suitable injection tubes at approximately 300mm centres along the crack-line using Sikadur 31+ for fixing the tubes and facing up the crack. Allow prepared crack system to harden, approximately 8 hours at 20°C. Use a low pressure pump to inject mixed grout starting at the lowest point of the crack and work upwards to the highest point sealing off each injection point in turn. Place the mixed grout within the useable time as stated in the table above. At the end of the useable time, the mix will start to generate a great deal of heat. At this time any unused material should be mixed with sand to reduce the heat output and discarded. Allow grout to cure for at least 24 hours. Cut off external parts of injection tubes and make good with Sikadur 31+.

CURING TREATMENT

No special curing practice is required.

CLEANING OF TOOLS

Clean all tools and application equipment using the Sika® Thinner C in accordance with the Product Data Sheet. Hardened material can only be mechanically removed.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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