BUILDING TRUST

PRODUCT DATA SHEET

Parex Railfast Grout

Rapid setting, high strength, polyester resin based grout

DESCRIPTION

Parex Railfast Grout is a polyester resin based material used for grouting where rapid early strength development is required. Parex Railfast Grout is supplied as a two pack system ready for onsite mixing, with a third component utilised for deeper sections; these consist of two tins of base resin, two bags of catalysed filler and one bag of aggregate.
Parex Railfast Grout can be used at section depths between 10 and 25mm without the aggregate component, or for section depths between 25 and 75mm with the aggregate component.
The mixed grout will harden to give rapid strength gain reaching ~50N/mm² in 2 hours, allowing rapid return to service.

USES

Parex Railfast Grout may only be used by experienced professionals.

- Grout pads under rail base plates.
- Filling of grout feeder boxes in steel support placement.
- Frame support.

CHARACTERISTICS / ADVANTAGES

- Winter and Summer grades.
- Very high early strength gain.
- Ready-to-mix, pre-batched units.
- Non-shrink.
- Resistant to petroleum products and road salts.
- Wide range of application depths.

APPROVALS / CERTIFICATES

Parex Railfast Grout has been tested in accordance with appropriate parts of the following standards: EN 12190 and BS 6319.

PRODUCT INFORMATION

Composition	Polyester resin	
Packaging	Pre-batched unit	32.8kg (A + B + C)
Shelf life	12 months from date of manufacture	
Storage conditions	Stored properly in original, unopened, sealed and undamaged packaging in dry conditions at temperatures between +5 °C and +30 °C. Protect from direct sunlight.	
Density	~2000 kg/m³	

TECHNICAL INFORMATION

Compressive strength

Summer Version (EN 12190)

Duration	Strength
2 Hours	~50 N/mm²
3 Hours	~60 N/mm²
24 Hours	~70 N/mm²

Note: Typical grout values at +20°C.

Winter Version (EN 12190)

Duration	Strength
2 Hours	~70 N/mm²
3 Hours	~75 N/mm²
6 Hours	~90 N/mm²

Note: Typical grout values at +5°C.

Modulus of elasticity in compression	~15 kN/mm² at 20°C
Tensile strength	~10 N/mm² at 20°C

APPLICATION INFORMATION

Consumption	~ 2.0kg/m²/mm
Yield	Each complete 32.8kg pack will yield approximately 16.4 litres of mixed material
Layer thickness	*Minimum grout depth: 10mm *Maximum grout depth: 25mm **Minimum grout depth: 25mm **Maximum grout depth: 75mm **without the aggregate component* ***with the aggregate component*
Ambient air temperature	0 °C minimum / +15°C maximum - Winter version +10 °C minimum / + 25°C maximum - Summer version
Substrate temperature	+5 °C minimum / +15°C maximum - Winter version +10 °C minimum / +25°C maximum - Summer version
Pot Life	~ 10 minutes after mixing *Note: Times may vary dependant on product variant and ambient temperatures.*

BASIS OF PRODUCT DATA

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.

IMPORTANT CONSIDERATIONS

- Minimum substrate temperature +5 °C.
- The material must be conditioned by being stored in an area with an ambient temperature between +5 °C and +30 °C for a minimum of 48 hours before being used.
- Do not thin with solvents. Solvents will prevent proper curing and change mechanical properties.
- Components B and C must be kept dry.
- Avoid splitting pre-batched units to mix. Mix complete units only.
- For smaller sections 1 x A and 1 x B component can be mixed.
- Cold ambient, substrate or material temperatures will influence the curing and flow characteristics.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

Laitance and all loose material including dust, oil and grease should be removed in order to produce a sound substrate. Ensure grouting area is dry.

SUBSTRATE PREPARATION

Substrates must be sound, dry, clean and free from laitance, ice, standing water, grease, oils, old surface treatments or coatings and all loose or friable particles must be removed to achieve a laitance and contaminant free, open textured surface.
Surface and base plate contact area must be clean and sound.
Ensure shuttering is grout-tight and constructed of materials that will not distort during placement. Heavy duty plywood (3/4”) or steel are recommended and will have prolonged working life allowing multiple use. Ensure that sufficient head is allowed to facilitate continuous discharge and that the gap is not less than 25mm from the edge of the plate. Ensure that the other edges are at least 20mm thick and that the grout is haunched up to level with the top surface of the base plate.

MIXING

To achieve the most consistent grout mix, mechanical mixing is recommended. Mixing may be carried out in the plastic package pail or a similar suitable mixing vessel. Suitable mixers include a slow speed high torque drill and Grout Stirrer. For full pack mixing of Railfast Grout pour all of the resin contained in the two tins within the pack into the mixing pail. Slowly add the catalysed filler while continually mixing. Continue mixing after all the catalysed filler has been added until the mix is powder free and uniform.
The chemical reaction of setting is rapid. The mixed grout should be placed immediately after mixing. The working time may be extended in cold ambient conditions and may be shortened in hot ambient conditions.

APPLICATION METHOD / TOOLS

Grouting Under Base Plates

Place grout continuously into the work area from one side only. Where further mixes are required to fill the void, these should be prepared in sequence such that pouring is continuous. Place mixed grout within 10 minutes after start of mixing. Do not disturb the grouted section until the grout has hardened.

Grout Feeder Boxes

Mixed Railfast Grout should be poured into grout feeder boxes allowing the gap between lower steel plates to be completely filled with Railfast Grout. The Railfast Grout should be brought up to a level within the box such that any small degree of volume change will be accommodated by further ingress of the grout.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with Sika® Thinner C Cleaner immediately after use. Hardened / cured material can only be removed mechanically.

LOCAL RESTRICTIONS

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

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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