

## PRODUCT DATA SHEET

# Parex Super FG

### LOW TEMPERATURE REPAIR AND IRONWORK BEDDING MORTAR

#### PRODUCT DESCRIPTION

Parex Super FG is a one component, Magnesium phosphate cement, rapid hardening and high early strength concrete repair and ironwork bedding mortar for use in temperatures as low as 0°C. The resulting mix produces a mortar which gives rapid setting and high early strength properties suitable for works carried out in raising or lowering carriageway frames and covers. Addition of further water will produce a grout. With the high early strength gain it is ideal for bedding of ironwork, bonding streetscape, flags, blocks and kerbs.

#### USES

- Re-bedding of raised manhole frames.
- Bedding of frames in new roads.
- Support of road furniture.
- Rapid repairs to concrete surfaces.
- Repairs to cold room areas.

#### CHARACTERISTICS / ADVANTAGES

- Easy to use just add water
- Rapid setting
- Trafficable within 45 minutes
- Can be placed at low temperatures
- Excellent un-primed adhesion
- High early age and ultimate strengths
- Shrinkage compensated mortar
- Increased resistance to de-icing salts
- Non corrosive to steel
- Durable freeze thaw resistance
- Varying consistency

#### PRODUCT INFORMATION

|                            |  |
|----------------------------|--|
| <b>Chemical Base</b>       | Magnesium Phosphate cement system  |
| <b>Packaging</b>           | 25kg bag   |
| <b>Shelf Life</b>          | 6 Months from the date of manufacture  |
| <b>Storage Conditions</b>  | Store in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5°C and +25°C. |
| <b>Appearance / Colour</b> | Grey powder  |
| <b>Density</b>             | ~2200Kg/m <sup>3</sup>   |

## TECHNICAL INFORMATION

|                      |               |                      |           |
|----------------------|---------------|----------------------|-----------|
| Compressive Strength | Mortar        |                      |           |
|                      | 45 mins       | ~15N/mm <sup>2</sup> | (EN12190) |
|                      | 2 Hours       | ~25N/mm <sup>2</sup> |           |
|                      | 7 Days        | ~48N/mm <sup>2</sup> |           |
|                      | 28 Days       | ~55N/mm <sup>2</sup> |           |
|                      | Grout         |                      |           |
|                      | 45 mins       | ~14N/mm <sup>2</sup> | (EN12190) |
|                      | 2 Hours       | ~24N/mm <sup>2</sup> |           |
|                      | 7 Days        | ~33N/mm <sup>2</sup> |           |
|                      | 28 Days       | ~27N/mm <sup>2</sup> |           |
| Shrinkage            | Volume Stable |                      |           |

## APPLICATION INFORMATION

|                         |  |                            |
|-------------------------|--|----------------------------|
| Mixing Ratio            | Consistency  | Water requirement (litres) |
|                         | Mortar   | 1.5 - 1.75                 |
|                         | Grout  | 2.0 - 2.25                 |
| Yield                   | Approx. 11.5 litres of mixed material per 25kg bag |                            |
| Layer Thickness         | 8 - 50mm   |                            |
| Ambient Air Temperature | +0°C min. / +35°C max.                             |                            |
| Substrate Temperature   | +0°C min. / +35°C max.                             |                            |
| Pot Life                | ~10 mins   |                            |

## VALUE BASE

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

## LIMITATIONS

- Do not add water in excess of the recommended dosage.
- For cold weather working below +5°C preheat mixing equipment and gauging water to a temperature of +25°C to +30°C.
- Apply only to prepared sound surfaces.
- Allow mortar to take initial set between applications.
- For hot weather working above +30°C keep mixing equipment cool by working in the shade and chill gauging water to +5°C.
- Do not attempt to rework material which has started to harden.
- Protect freshly applied material from freezing.
- Do not use limestone aggregate as a filler.

## ECOLOGY, HEALTH AND SAFETY

Local safety regulations must be observed and it advisable to wear PPI when working with this product with particular attention paid to cutting and handling. Transportation Class: The product is not classified as hazardous good for transport. Disposal: The material is recyclable. Disposal must be according to local regula-

tions. Please contact your local Sika sales organisation for more information.

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

**Concrete Substrate Preparation:** Breakout and remove all concrete designated as being defective, loose and unsound, using suitable mechanical equipment. Ensure sufficient concrete is removed from around reinforcement to allow priming of the steelwork and compaction

of the repair material. At the repair locations, feather edging should be avoided. The edges should be square cut to at least the recommended minimum application thickness of the repair material.

**Reinforcement And Ironwork Preparation:** All exposed reinforcement should be thoroughly prepared to clean, bright metal, using abrasive blast cleaning or other approved methods.

**Steel Reinforcement Priming:** Where required, prior to applying Parex Super FG into the repair area, apply two coats of SikaTop® Armatec 110 EpoCem onto the reinforcement in accordance with the product technical data sheet.

### MIXING

Excess mixing water should not be used. When mechanical mixing is used wet down the mixing vessel then

drain all free water. Add the measured quantity of mixing water. Add the full bag of Parex Super FG. Mix for at least one minute. Suitable mixers include a slow speed high torque drill and Mortar Stirrer. For mixing at temperatures below +5°C, pre-warm the mixing vessel with warm water and use warm mixing water. Suitable water temperatures are approximately +25 to +30°C.

## APPLICATION

Place the mixed mortar as soon as mixing is complete. The chemical setting of Parex Super FG is rapid and all mixed material should be placed within 10 minutes of adding the mixing water. Set frames by "the drop bed method" or by shimming with hard ceramic tiles to line and level followed by "mortar packing". The mortar should be fully compacted to obtain maximum strength. In both methods the mortar may be face finished using normal steel trowelling. Once the frame has been set, the outer area can be filled to the required thickness using Parex Super FG as either a grout or concrete mix.

## CURING TREATMENT

Finished areas will not normally require curing owing to the rapid setting nature of Parex Super FG. However, where rain, or excessively hot, dry or windy conditions prevail, cover after application using hessian or polythene sheeting taped down at the edges or other approved method. For cold weather working also use insulation to maintain temperatures. Never wet cure Parex Super FG

## CLEANING OF TOOLS

Remove Parex Super FG from tools and equipment with water. Hardened material can only be removed mechanically.

## LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

## 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 recommenda-

tions. 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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