BUILDING TRUST

PRODUCT DATA SHEET

Parex Epoxy Mortar E Fine Grade

Parex Epoxy Mortar E Fine Grade is a 3-part epoxy resin based repair mortar

DESCRIPTION

Parex Epoxy Mortar E Fine Grade is an epoxy resin based mortar suitable for placing using hand tools. The product consists of a resin base, a hardener and a bag of specially graded fillers. The grading of the filling system enables application thicknesses of 20mm down to a featheredge.

The working surface is to be primed using Sikadur®-32+ which ensures excellent adhesion to most construction materials, including:

- Concrete elements
- Hard natural stone
- Ceramics, fibre cement
- Mortar, bricks, masonry and render
- Steel, iron and aluminium
- Wood
- Polyester, epoxy and polyurethane
- Polyester, fibreglass and epoxy resin materials

Parex Epoxy Mortar E Fine Grade is easy to place using hand tools and repairs provide the highest mechanical properties.

The mortar can be used to give support to concrete arrises and will act as a high strength support under steel units. Parex Epoxy Mortar E Fine Grade is resistant to a wide range of chemicals, including petroleum products. The mortar is stable to freezing and thawing.

USES

Parex Epoxy Mortar E Fine Grade may only be used by experienced professionals.

The Product is suitable for:
- Repairs to concrete beams, columns, floors and walls.
- Supporting precast concrete and steel units in critical situations.
- Placed support for stanchion bases.
- Providing support for bridge bearings.

FEATURES

- Easy to mix and apply.
- Excellent adhesion to most construction materials when used in conjunction with Sikadur®-32+.
- Supplied in convenient 10kg packs.
- Different coloured components for mixing control.
- Thixotropic nature.
- Hardens without shrinkage.
- Fast strength build: ~75N/mm² after 24 hours.
- High ultimate compressive strength: ~90N/mm² after 7 days.
- Good adhesion resistance.
- Good chemical resistance.
- Cured product is impermeable to liquids.
- Stable to freeze-thaw action.
- Application layer thickness: 20mm to feather edge.

PRODUCT INFORMATION

Composition	Epoxy resin, selected fillers and aggregate.
Packaging	10 kg three-part pack
Shelf life	24 months
Storage conditions	In unopened containers when kept in dry conditions at a temperature between 5°C and 45°C. Storage at higher temperatures and high humidity may reduce shelf life.
Density	~1950 kg/m³

TECHNICAL INFORMATION

Compressive strength	**1 Day**	**3 Days**	**7 Days**
	~75 N/mm²	~84 N/mm²	~90 N/mm²
	Note: typical Mortar Properties at 20°C.		
Flexural-strength	~27 N/mm² at 7 days		
Tensile strength	~16 N/mm² at 7 days		
Shear strength	~10 N/mm² (placed on concrete)		
Reaction to fire	Fully cured Parex Epoxy Mortar E Fine Grade is classified as non-flammable. Should fire occur, extinguish with CO_2 or foam.		

APPLICATION INFORMATION

Yield	Each 10 kg pack will yield approximately 5 litres of mixed material.	
Layer thickness	20mm to feather edge	
Material temperature	Maximum	+35 °C
	Minimum	+5 °C
Ambient air temperature	Maximum	+35 °C
	Minimum	+5 °C
Dew point	Beware of condensation. Substrate temperature during application must be at least +3 °C above dew point.	
Substrate temperature	Maximum	+35 °C
	Minimum	+5 °C
Substrate moisture content	Substrates must be dry or matt damp (no standing water).	
Pot Life	~45 minutes	

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.

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

CONCRETE, MASONRY, MORTAR AND STONE
Concrete and mortar must be at least 28 days old. Substrates must be sound, clean, dry or matt damp with no standing water. Substrates must also be free from contamination such as ice, dirt, oil, grease, coatings, laitance, efflorescence, surface treatments and loose friable material.
STEEL
Surfaces must be sound, clean, dry and free of all contaminants such as dirt, oil, grease, coatings and loose friable material.
WOOD
Surfaces must be sound, clean, dry and free of all contaminants such as dirt, oil, grease, coatings and loose friable material.

SUBSTRATE PREPARATION

Reduced adhesion performance
Surface contamination such as dust and loose material, including that caused during substrate preparation, can reduce the Product's performance. Thoroughly clean all substrate surfaces before application of the product by vacuum or dust removal equipment.
CONCRETE, MASONRY, MORTAR AND STONE
Suitable techniques for substrate preparation include the following:
- Abrasive blast cleaning.
- Needle gunning.
- Light scabbling.
- Bush hammering.
- Grinding.

Prepare the substrate mechanically using a suitable technique. The substrate shall have an open textured, gripping surface profile.
STEEL
Suitable techniques for substrate preparation include the following:
- Abrasive blast cleaning.
- Rotating wire brush.
- Grinding.

Prepare the substrate mechanically using a suitable technique. The substrate has a bright metal finish with a surface profile to satisfy the necessary tensile adhesion strength requirement.
WOOD
Prepare the substrate by planing, sanding or using other suitable equipment.

MIXING

Maintaining workability and handling time.
When using multiple units during application, do not mix the following unit until the previous one has been used.
PRE-BATCHED UNITS
- Mix full units only. Prior to mixing all parts, mix Part A (resin) briefly using a mixing spindle attached to a slow speed electric mixer (maximum 300 rpm). Add Part A to Part B (hardener) and mix Parts A+B continuously for at least 3 minutes until a uniformly coloured smooth consistency mix has been achieved.
- While mixing Parts A + B, gradually add Part C (filler/aggregate).
- IMPORTANT: Do not mix excessively. Mix until a uniform consistency is achieved.
- To ensure thorough mixing pour materials into a clean container and mix again for approximately 1 minute.

For larger quantities, place the mixed resin system into a suitable forced action mixer such as the Mixal. Start to mix and slowly add the filler. When all the filler has been added, mix for a further two minutes until an even colour is achieved.

APPLICATION

REPAIR
Preconditions:
Prior to application, confirm dew point conditions before and during application.
- On damp prepared concrete substrates, always work the Product well into the substrate.
- Use Sikadur®-32+ as a primer to improve the bond.
- Place temporary formwork as required.
- Apply mixed material to the prepared surfaces with a spatula, trowel or by gloved hand.
- A smooth surface finish may be achieved using a steel trowel moistened with Solvent.

For repairs greater than 20 mm deep, the Product must be applied in layers.
- Scratch the surface of the freshly applied intermediate layer to form a key for the subsequent layer.
- Apply successive layers once the previous layer has hardened.
- If the time between layers is going to be more than 2 days, blind the wet mortar to excess with quartz sand immediately after application.

JOINT FILLING AND CRACK SEALING
- Use Sikadur®-32+ as a primer to improve the bond.
- Apply mixed material to the prepared surfaces with a spatula or trowel.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with Sika® Thinner C immediately after use. Hardened 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.

SIKA LIMITED
Watchmead
Welwyn Garden City
Hertfordshire, AL7 1BQ
Tel: 01707 394444
Web: www.sika.co.uk
Twitter: @SikaLimited