

## PRODUCT DATA SHEET

# Parex Tecfast Concrete

### R4 Strength, Rapid Setting Repair Concrete

#### PRODUCT DESCRIPTION

Parex Tecfast Concrete is a cement based, one component, rapid setting, shrinkage compensated repair concrete.

Parex Tecfast Concrete is suitable for all concrete works where early strength development is required in order to allow early use of the placed sections. The product may be used for localised repairs plus large area placement or re-instatement of concrete pavements.

#### USES

- Concrete repairs to accept foot and vehicular traffic.
- Forming of new pavement areas.
- Re-instatement of deteriorated pavement areas.
- Rapid repairs to roadways & runways.
- Structural support situations.

#### PRODUCT INFORMATION

<b>Chemical Base</b>	Portland cement, selected fillers and aggregates, special additives	
<b>Packaging</b>	25 kg bags	
<b>Shelf Life</b>	6 months	
<b>Storage Conditions</b>	Store properly in dry conditions in undamaged and unopened original sealed packaging	
<b>Appearance / Colour</b>	Grey powder	
<b>Maximum Grain Size</b>	6.0 mm	
<b>Density</b>	2250-2300 kg/m <sup>3</sup>	(EN 12390-7)
<b>Soluble Chloride Ion Content</b>	<0.003%	(EN 1015-17)

#### CHARACTERISTICS / ADVANTAGES

- Suitable for use in exposure classes: XO, XC4, XS3, XD3, XF1, XA1
- Rapid setting
- High early strength gain
- 20 - 650mm application thickness
- Good chemical resistance
- No special curing required

#### APPROVALS / STANDARDS

Parex Tecfast Concrete meets the requirements of the Highways Agency Specification for Highway Works Series 1700 for Structural Concrete.

Parex Tecfast Concrete complies with the classification R4 according to BS EN 1504-3 and is a concrete repair product for structural repair CC mortar (based on hydraulic cement).

## TECHNICAL INFORMATION

<b>Compressive Strength</b>	2 hours	20 N/mm <sup>2</sup>	(EN 12190)
	24 hours	35 N/mm <sup>2</sup>	
	7 days	45 N/mm <sup>2</sup>	
	28 days	65 N/mm <sup>2</sup>	
*typical values @ 20°C using 2.25 litres of water			
<b>Modulus of Elasticity in Compression</b>	41.2 GPa		(EN 13412)
<b>Tensile Strength</b>	2.4 N/mm <sup>2</sup>		(EN 1542)
<b>Reaction to Fire</b>	Euroclass A1		

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	2.25 litres of water for 25 kg powder
<b>Yield</b>	25 kg yields 11.5 litres.
<b>Layer Thickness</b>	20mm min. / 650mm max.
<b>Ambient Air Temperature</b>	+5°C min. / +35°C max.
<b>Substrate Temperature</b>	+5°C min. / +35°C max.
<b>Pot Life</b>	10 mins* from start of mixing *@ 20°C. At other temperatures potlife may differ
<b>Setting time</b>	20 mins
<b>Initial set time</b>	15 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.

## FURTHER DOCUMENTS

Parex Tecfast Concrete is suitable for use in exposure classes:  
XO, XC4, XS3, XD3, XF1, XA1 according to EN 206.

## LIMITATIONS

- Application temperature range +5 to +35°C
- Do not apply to substrates that are likely to be affected by frost or thawing
- Substrate must be clean, sound and free of loose material
- Active cracks should be made passive prior to application
- Do not part mix

## 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

All excavation work and installation of shuttering must be completed prior to start of mixing. All formwork should be of adequate strength, treated with release agent and sealed to prevent leakage. Sealing can be achieved by using Sikaflex® -11FC+ sealant beneath or around formwork and between joints. Ensure formwork includes outlets for extraction of the pre-soaking water. Break out defective concrete to an appropriate profile. Surfaces must be sound, clean, free from ice, oils, grease, standing water and any loose or friable particles and any other surface contaminants. The concrete substrates should be pre-soaked with clean water continuously for 2 - 6 hours to ensure a saturated surface dry condition throughout the operation. Immediately before pouring grout, remove all excess or standing water from within any formwork, cavities or pockets.

### MIXING

To achieve the most consistent concrete mix, mechanical mixing using a forced action mixer such as the Creteangle is recommended. Small mixes may be made using a heavy duty, slow speed, high torque drill

and Mortar Stirrer.

Measure the appropriate amount of water and place in to a clean mixing vessel. Excess water should not be added. Slowly add complete bag of Parex Tecfast Concrete into the water and continuously mix to achieve a uniform and lump free consistency.

The concrete should be placed within approximately 15 minutes of mixing. The working time may be extended in cold ambient conditions and may be slightly shortened in hot ambient conditions. For cold weather working warm mixing water at up to 30°C may be used.

Once setting of the concrete has commenced, further mixing should not be used to re-work the mix.

## APPLICATION

Mixed Parex Tecfast Concrete should be placed onto the dampened prepared surface as soon as mixing is complete. Once placed fully compact the concrete to obtain maximum strength development. The bed thickness applied in a single application should be between 20mm to 650mm.

The placed concrete will have hardened sufficiently to carry out further work within some 20 minutes depending on the surrounding ambient conditions.

## CURING TREATMENT

No special curing is required at temperatures between 5°C and 35°C.

At early ages do not allow placed concrete to rapidly dry and protect from rain and frost.

## CLEANING OF TOOLS

Clean all tools and application equipment with water immediately after use. Hardened/cured material can only be mechanically removed.

## 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 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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and chemicals for Construction,  
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