

PRODUCT DATA SHEET

Parex Fine Bedding Concrete (FBC)

BS 7533 compliant, hard landscaping, fine bedding mortar for the laying of natural stone slabs, pavers and setts

DESCRIPTION

Parex Fine Bedding Concrete (FBC) is a cementitious, polymer reinforced, single-component mortar for the placing and bedding of paving units. The mix design includes powerful plasticising agents which produce a workable mortar, suitable for bedding slabs, pavers and setts. The low water requirement enables the placed mortar to rapidly develop the compressive strength required to support the placed paving elements.

Parex Fine Bedding Concrete (FBC) is an integral member of the Parex / Sika Streetscape Range, and is designed specifically to conform to the relevant parts of BS 7533, ensuring performance and longevity. It should be used in conjunction with Parex Bond Plus Mortar to ensure sufficient bond strengths are achieved; and Parex Granatech, to provide a fully compliant bedding and jointing system for hard landscaping projects.

USES

- Bedding of paving units for vehicular traffic.
- Bedding of slabs, pavers and setts for all pedestrianised zones.

FEATURES

- Pre-batched for simplicity: only requires the measured addition of water.
- Cost-effective.
- Ready for on-site mixing.
- Formulated for ease of use and to meet (and exceed in some respects) the requirements of BS 7533.
- Integral part of the Streetscape Range.
- Available in 25 kg and 1,000 kg bulk bags.
- Good freeze-thaw stability.
- Resistant to oils and many chemicals.
- Wide range of application thicknesses achievable (30 to 75 mm).
- EuroClass A1 reaction to fire rating.

PRODUCT INFORMATION

Composition	Portland cement and special polymers and plasticisers
Packaging	25 kg and 1,000 kg bulk bags
Shelf life	6 months
Storage conditions	Bagged Parex Fine Bedding Concrete (FBC) will have a shelf life of 6 months when kept in dry conditions at a temperature of +5°C to +35°C. Storage at higher temperatures or high humidity may reduce the shelf life. Bulk bags should be used as soon as possible after delivery. Bags not to be used immediately should be stored on pallets and under cover.
Appearance and colour	Grey powder
Density	~2,000 kg/m ³

TECHNICAL INFORMATION

Compressive strength	3 Days	~20 N/mm ²	(BS EN 13892-2)
	7 Days	~30 N/mm ²	
	28 Days	~40 N/mm ²	
<i>Note: Typical mortar values at 20°C.</i>			
Modulus of elasticity in compression	~21,000 N/mm ² (determined after 28 days)		(BS EN 13412)
Flexural-strength	~5.0 N/mm ² (determined after 28 days)		(BS EN 13892-2)
Tensile adhesion strength	≥2.0 N/mm ² *		(BS EN 13892-8)
*Attained with Parex Bond Plus Mortar after 28 days. <i>Note: The tensile adhesion / bond strength achieved is a function of the mortar used and the porosity / surface texture of the paving units. For vehicular trafficked areas, the inclusion of a scrub coat of Parex Bond Plus Mortar is essential.</i>			
Shrinkage	≤0.09% (determined after 56 days)		(BS EN 12617-4, Clause 6)
Water permeability	Horizontal	6.8 x 10 ⁻⁴ m/s	(BS EN 12697-19)
	Vertical	6.4 x 10 ⁻⁴ m/s	
<i>Note: Results follow the material being lightly tamped for compaction through application.</i>			

SYSTEM INFORMATION

System structure	Parex Fine Bedding Concrete (FBC) is part of the Parex / Sika Streetscape System complying with the relevant parts of BS 7533 and comprising of: Bedding Mortar: Parex Fine Bedding Concrete (FBC) Priming Scrub Coat: Parex Bond Plus Mortar Pointing / Jointing Mortar: Parex Granatech Parex Granatech 40 Fine
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APPLICATION INFORMATION

Yield	Each 25 kg bag will yield approximately 13.5 litres of mixed material. Each 1,000 kg bulk bag will yield approximately 540 litres of mixed product.
Layer thickness	30 mm minimum / 75 mm maximum (40 mm is typically used for most applications)
Ambient air temperature	+5°C minimum / +35°C maximum
Mixing ratio	The water requirement is 8 to 9% (or 2.0 to 2.25 litres of water) per 25 kg bag.
Substrate temperature	+5°C minimum / +35°C maximum
Pot Life	~45 minutes at 20°C

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

- Avoid application in direct sun and / or strong wind and / or rain.
- Do not add water over recommended dosage.
- Apply only to sound, prepared substrates.

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 PREPARATION

Contact surfaces must be sound, clean and provide a good mechanical key. Remove any loose material, laitance, plaster, paint and oily deposits.

SUBSTRATE QUALITY / PRE-TREATMENT

Prepare a priming scrub coat of Parex Bond Plus Mortar. Prime the prepared substrate and the underside of the paving units with the priming scrub coat using a stiff bristle brush. Apply the Parex Fine Bedding Concrete (FBC) before the priming coat has dried (i.e. 'wet-on-wet').

MIXING

Mixing of bagged Parex Fine Bedding Concrete (FBC) requires a forced action mixer such as a Creteangle or Rojo. Pour the recommended amount of clean water into a suitable mixing vessel. Gradually add the powder and mix thoroughly until a homogeneous product is achieved. Once mixed, apply within the pot life. Additional water should not be added to 'revive' the product past its pot life.

APPLICATION

Apply the mixed Parex Fine Bedding Concrete (FBC) to the primed substrate before the priming coat has dried (i.e. 'wet-on-wet'). Compact the Parex Fine Bedding Concrete (FBC) to ensure good contact with the underlying primed surface. It is advisable to dip setts / cubes in water to clean them prior to priming. Prime the back / underside of the paving units being used and place the units onto the wet Parex Fine Bedding Concrete (FBC) and adjust the levels as required. Always ensure that the Parex Fine Bedding Concrete (FBC) layer is fully compacted.

Application thickness of the Parex Fine Bedding Concrete (FBC) should be in the range of 30 mm to 75 mm (40 mm is typical for most applications). In situations where thick layers are required to be built up, the surface of the lower layer should be left with a wood float finish and should be scored. Subsequent Parex Bond Plus Mortar and Parex Fine Bedding Concrete (FBC) layers may be applied as soon as the initial layer is firm enough not to distort under the new work.

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CURING TREATMENT

In temperate ambient conditions, no special curing is required. In severe drying conditions of high temperatures and high wind, the paved surface should be sprayed with water to assist with temperature control of the paving surface and provide water for additional curing of the Parex Fine Bedding Concrete (FBC).

CLEANING OF EQUIPMENT

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

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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