BUILDING TRUST

PRODUCT DATA SHEET

Monoset® HPC

High Early Strength and Waterproof Concrete

DESCRIPTION

Monoset® HPC is a polymer modified concrete designed for repairing existing concrete or laying new floors where speed of strength gain and waterproofing performance is critical. Monoset® HPC will accept foot traffic in an hour and vehicle traffic in 24 hours after placement. The performance of the product is certified under the Hong Kong Concrete Institute (HKCI) Product Conformity Certification Scheme for Repair Mortars (PCCS-RM) Class S and is suitable for repairs to concrete with a characteristic strength (fcu) up to at least 23 MPa.

USES

- Internal and external application
- Industrial applications
- Residential applications

CHARACTERISTICS / ADVANTAGES

- Prepacked for control and convenience
- Excellent waterproof performance
- Rapid strength gain
- Compatible with most ordinary concrete
- Low VOC

PRODUCT INFORMATION

Product Declaration	Age at Test	PCCS-RM Specification (Class S fcu 23)	Monoset® HPC Typical Performance	Test Method
	28 days	≥ 30	49 MPa	TM1
	*All the above data complies with Product Conformity Certification Scheme.			
Packaging	30 kg bag of powder and 10 kg bag of aggregate			
Shelf Life	6 months from the date of production			
Storage Conditions	Stored properly in undamaged and unopened original sealed packaging. Protect from direct sunlight, moisture and frost.			
Appearance / Colour	Concrete grey			
Soluble Chloride Ion Content	< 0.35 % by mass of cementitious content			

TECHNICAL INFORMATION

Compressive Strength	Age at Test	Monoset® HPC Typical Performance	Test Method
	5 hours	≥ 5 MPa	TM1
	28 days	> 30 MPa	TM1

Modulus of Elasticity in Compression	Age at Test	Monoset® HPC Typical Performance	Test Method
	28 days	< 28 GPa	BS 6319 : Part 6 : 1984

Tensile Adhesion Strength	Age at Test	Monoset® HPC Typical Performance	Test Method
	7 days	> 1 MPa	TM4

Shrinkage	Age at Test	Monoset® HPC Typical Performance	Test Method
	28 days	< 0.04 %	HKHA MTS Specification D CL.2.1.21
	28 days	No Cracking	Coutinho Ring Test

Water Absorption	Age at Test	Monoset® HPC Typical Performance	Test Method
	28 days	< 2 %	BS 1881 : Part 122 : 1983

APPLICATION INFORMATION

Consumption	Approx. 50 packs / m^3	
Flowability	> 150 mm	
Initial Set Time	≥ 45 minutes and ≤ 90 minutes	(ASTM C953-87)

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 Material Safety Data Sheet (MSDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Mechanically prepare the substrate to provide a structurally sound surface. Remove grease, oil, dirt and deleterious material. Damp surface with clean fresh water. Apply primer (Dilute one part of Ronascreed® Primer with three parts of water by volume) or Monoset® Primer (Prepacked) to the dampened substrates.

MIXING

Dry mix the powder and aggregate with mechanical mixer until homogenous. Add 3.8 to 4.2 litres of water into the mixer and mix all components together until a workable and homogenous mixture is achieved.

APPLICATION

Once mixed, pour the mixture into place and compact properly by appropriate means. Build up the application thickness to the required level, then close the surfaces with trowel or wood float.

CURING TREATMENT

Allow the area to cure properly and consult with Sika's Technical Department for curing method in severe conditions.

CLEANING OF TOOLS

Clean all tools and equipment with clean water immediately after use.

LOCAL RESTRICTIONS

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

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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