BUILDING TRUST

PRODUCT DATA SHEET

Sikacrete®-114 PK

Free Flowing Micro-Concrete For Grouting And Repair

DESCRIPTION

Sikacrete®-114 PK is a one component, free-flowing, high strength, non-shrink, cement based micro-concrete with a maximum aggregate size of 10 millimeter. Suitable for use in hot and tropical climatic conditions.

USES

Sikacrete®-114 PK is used for the structural repair of deteriorated concrete.
It is ideal for casting sections or members where the volumes required are too large for conventional grouts, and too small and inaccessible for normal concreting applications. A typical application is the re-profiling of damaged concrete members, using framework. Also suitable for base plate grouting where thickness exceeds 100 millimetre.

CHARACTERISTICS / ADVANTAGES

- One component, requires the addition of water only
- Reduced waste and risk of mixing failures
- Easy to mix, apply and finish
- Economical
- Excellent adhesion
- Shrinkage compensated
- Rapid strength development
- Compatible with the properties of typical concrete
- Vapour permeable

PRODUCT INFORMATION

Chemical Base	Portland cement, selected fillers and aggregates, special additives
Packaging	40 kg bag
Appearance / Colour	Grey powder
Shelf Life	6 months minimum from date of production
Storage Conditions	Store in original unopened packaging in cool and dry condition between 5°C and 35°C. Protect from direct sunlight, heat and moisture.
Maximum Grain Size	Max. 10 mm

TECHNICAL INFORMATION

Compressive Strength	≥ 35 MPa 1 day ≥ 40 MPa 3 days ≥ 45 MPa 7 days ≥ 65 MPa 28 days (ASTM 1107 / ASTM C109/70mm)	
Water Absorption	~2.3 % (28 days)	(BS 1881)

APPLICATION INFORMATION

Mixing Ratio	0.08 - 0.11	
Yield	~18.4 L / 40 kg bag	
Layer Thickness	Min. 50 mm per pour Max. 500 mm per pour	(Min. 100 mm for baseplate grouting)
Ambient Air Temperature	+5 °C min. / +35 °C max.	
Substrate Temperature	+5 °C min. / +35 °C max.	
Pot Life	~ 60 min (25 °C)	
Fresh mortar density	~2.5 kg/l	

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.

LIMITATIONS

- Ensure formwork is secure and watertight to preventmovement and leaking during placing and curing.
- At high ambient temperatures use chilled water formixing to keep grout temperature below 30°C.
- In hot weather, base plates and foundations must beshaded from direct sunlight.
- For additional information on Sikacrete®-114 PK orother grouting materials contact Sika TechnicalDepartment.
- Use of aluminum tools & equipments is strongly notrecommended.

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

SURFACE PREPARATION

Embedded reinforcing steel should be free from scale, rust, oil and grease, and treated with a suitable anti-corrosion coating such as SikaTop® Armatec® 110 Epo-Cem®. The application of a suitable bonding agent, such as Sikadur®-32 LP or SikaTop® Armatec® 110 EpoCem®, will improve adhesion on large areas or where particularly dense concrete substrates are involved.

SUBSTRATE QUALITY / PRE-TREATMENT

Concrete surfaces should be clean, sound, rough and free from oil, grease, cement laitance and all loosely adhering particles. Absorbent surfaces should be saturated thoroughly with clean water. Metal surfaces (iron and steel) should be free from scale, rust, oil and grease.

MIXING

Always empty the full contents of the bag into a suitable mixer. Mix dry for 3 minutes before adding the water. Add 3.2 to 4.0 litre of water per 40 kilogram bag. Best mixed in a forced action mixer. Do not mix by hand or mix part bags. For best results,first add 3.5 to 3.8 litre of water and mix for at least 3 minutes or until the larger aggregate has thoroughly dispersed and a uniform, free flowing consistency is obtained. Then add remaining water and mix for additional 2 minutes. Slow speed SS paddle mixer (maximum 500 rpm) should be used for mixing(aluminum paddle is

strongly not recommended).

APPLICATION

Always empty the full contents of the bag into a suitable mixer. Mix dry for 3 minutes before adding the water. Add 3.2 to 4.0 liter of water per 40Kg bag. After mixing with water let it stand for 2-3 minutes before pouring to allow entrapped air to escape. Dampen all concrete surfaces thoroughly with clean water prior to application. Maintain sufficient hydrostatic head to keep the product flowing. Minimum application thickness: 50 mm. Maximum application thickness per layer 500 mm depending on volume to be filled.Maintain sufficient hydrostatic head to keep the product flowing. Provide channels for the air to escape during grouting. Protect from rain until initial set has been achieved.

CURING TREATMENT

Treat exposed surfaces with Antisol-WB curing com-pound or use other approved curing methods such as polyethylene sheeting or wet hessian. Do not commence fogging until final set has been reached.

CLEANING OF TOOLS

Clean equipment and mixer after application with water. Hardened material can only be removed mechanically.

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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