

Technical Data Sheet

StoCrete PCR

One component, polymer modified standard structural repair mortar



Characteristics

Area of application

- For horizontal, vertical and overhead patching of spalled concrete
- To repair concrete in accordance with Sto Repair Systems

Properties

- Ease of use requiring only addition of water
- Low permeability giving optimum protection to steel reinforcement from chlorides ingress
- Shrinkage compensated for large application
- High bond strength to parent concrete
- Application thickness of approximately 10 – 40 mm vertical and 10 – 25 mm overhead achieved in one operation
- Good workability and water retentively preventing dry out phenomena
- Suitable for both interior and exterior applications

Application method

- Apply by steel trowel

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Criteria	Standard / test specification	Value / Unit	Notes
Compressive Strength @ 28 days	ASTM C109 : 92	> 40.0 N/mm ²	
Flexural Strength @ 28 days	ASTM C580:2002	>9.0 Mpa	
Modulus of Elasticity @ 28 days	ASTM C580:2002	>7.0 GPa	
Slant Shear Bond Strength @ 28 days	ASTM C1042:1999	>13.0 N/mm ²	
Volume Change	ASTM C827 : 87		
@ 3 days		0.1 %	
@ 28 days		0.1 %	
Water Absorption @ 7 days	ASTM C413 :2001	1.0 %	

The characteristic values stated are average values or approximate values. Due to the natural raw materials in our products, the stated values can vary slightly in the same delivery batch; this does not affect the suitability of the product for its intended use.

Substrate

Preparation

Ensure that the concrete surface to be repaired is sound and free from dirt, oil, laitance and any other deleterious substances.

Edge of repair area should be recessed to a depth of 5 mm to prevent feather edging.

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Application					
Material Preparation	<p>StoCrete PCR must be mixed in a forced action pan mixer or with a slow speed drill (500rpm) fitted with a spiral paddle.</p> <p>Pour 4.4 – 4.6 litres of water into a mixing container.</p> <p>Add StoCrete PCR into the water slowly and mix for at least 3 – 4 minutes until an even trowellable plastic consistency is obtained.</p>				
Placing Procedure	<p><u>Priming</u> All exposed reinforcement bars must be cleaned and treated with Sto anti-corrosion primer. Saturate the area to be repair with water and remove any excess.</p> <p>Prime the repair area with Sto bonding agent.</p> <p><u>Placing</u> StoCrete PCR should be applied while the bonding agent is still tacky. Apply StoCrete PCR using a steel trowel from the recessed edge to the recommended thickness. Thicker layers should be applied in a few operations.</p> <p>StoCrete PCR should be allowed to partially set before finally trowelling to a smooth finish</p>				
Setting Time	<table> <tr> <td>Initial set</td> <td>3 – 4.5 hours</td> </tr> <tr> <td>Final set</td> <td>5 – 6.5 hours</td> </tr> </table>	Initial set	3 – 4.5 hours	Final set	5 – 6.5 hours
Initial set	3 – 4.5 hours				
Final set	5 – 6.5 hours				
Yield / Consumption	<p>The approximate yield of StoCrete PCR per 25 kg bag is 0.014 m³, depending on water addition. Allowance should be made for wastages when estimating.</p> <p>The consumption rate is approx. 1.8 kg/mm² per mm layer thickness</p>				
Application Temperature	<p>Minimum application temperature + 8°C Maximum application temperature + 45°C</p>				
Cleaning Tools	<p>Tools must be cleaned immediately after use with water. Hardened materials can only be removed mechanically.</p>				
Delivery					
Packing	<p>StoCrete PCR is available in 25 kg bag</p>				
Storage					
Storage Life & Condition	<p>This product has a shelf life of 12 months from the manufacturing date.</p> <p>Product should always be stored in an unopened bag, dry place, protected from rain, direct sunlight and raised off the floor.</p>				
Special notes					
Health & Safety	<p>Please refer to Safety Data Sheet</p>				
Technical Support	<p>Please consult the local sales office for further information and any site assistance required.</p>				

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The information in this Technical Data Sheet serves to ensure the product's intended use, or its suitability for use, and is based on our findings and experience. Users are nevertheless responsible for establishing the product's suitability and use.

Applications not specifically mentioned in this Technical Data Sheet are permissible only after prior consultation. Where no approval is given, such applications are at the user's own risk. This applies in particular when the product is used in combination with other products.

When a new Technical Data Sheet is published, all previous Technical Data Sheets are no longer valid. The latest version is available on www.sto-sea.com.

Sto SEA Pte Ltd

159 Sin Ming Road
#06-02 Amtech Building
Singapore 575625
Phone : +65 6453 3080
Fax : +65 6453 3543
info.sg@sto.com
www.sto-sea.com

Sto SEA Sdn Bhd

No. 15 Jalan Teknologi PJU 3/3A
Surian Industrial Park Kota Damansara,
47810 Petaling Jaya, Selangor Malaysia
Phone : +60 03 6156 6133
Fax : +60 03 6156 7133
info.sg@sto.com
www.sto-sea.com

StoCretec GmbH

Gutenbergstr. 6
D-65830 Kriftel,
Germany
Phone : +49 6192 401 104
Fax : +49 6192 401 105
info.sg@sto.com
www.sto-sea.com