

Technical Data Sheet

StoCrete MC 2001

High strength, high flow, dual shrinkage-compensated cementitious micro concrete (marine environment)



Characteristics

Area of application

- Suitable for bridges, columns, marine structures dams and structural repairs
- It can be applied by gravity pour or mechanical pumping
- StoCrete MC 2001 can also be applied where single placing is in excess of 20 mm

Properties

- This product is special designed for use where high tolerance, high strength and high fluidity are required
- It is formulated to provide consistent and exacting performance in critical grouting operation
- StoCrete MC 2001 is quality controlled and supplied ready for use on site
- Good impact and vibration resistant
- Good flow characteristics to allow ease of application
- Suitable for large repairs
- High ultimate strength and low permeability
- Reliable factory controlled quantity formulations eliminating site batching errors
- Non-toxic and non-corrosive
- Chloride and iron free
- Positive expansion to ensure effective contact and support

Application method

- Apply using grout pump or manual pouring

Technical Data

Criteria	Standard / test specification	Value / Unit	Notes
Compressive strength (Flowable)	ASTM C942		
@ 1 day		25 N/mm ²	
@ 7 days		55 N/mm ²	
@ 28 days		70 N/mm ²	
Flexural Strength @ 28 days		7 N/mm ²	
Expansion / Shrinkage	ASTM C1090	+ 0.20 %	
Final Bleeding @ 3 hours	ASTM C940-81	No Bleeding	
Rapid Chloride Permeability Test (RCPT) @28 days	ASTM C1202-12	< 800 Coulomb	
Initial Surface Absorption Test (ISAT) @28 days	BS 1881 Part 208:1996	< 0.1 @ 2 hrs	ml/ m ² / sec
Flow Through Test according to UK Department of Transport Standard	BD27/86 clause 4.6b	1000 mm	
Spread Time to reach 750mm (measured during flow through test of BD27/86)	BD27/86	<10 sec	

*Typical results achievable when complying in strict accordance with the test procedure.

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.

Technical Data Sheet

StoCrete MC 2001

Substrate

Preparation

1. All concrete surfaces to be grouted must be sound, clean and free from oil, grease, laitance or any other loose adhering particles.
2. Formworks shall be sufficiently tight-fitting and sealed against leakages.
3. On the placement side, the forms should be constructed above the bottom of the plate to form a head box. The head box should be positioned at a minimum of 50mm from the plate and slope away at a 45° angle to assist grout placement as well as prevent air entrapment
4. A minimum grout head (adjacent height of the slope form) of 100mm must be maintained. In general, this can be established as 1/5 of the travel distance for the grout.
5. On the opposite side, the form should be minimum 50mm away from the plate and extend at least 25mm above the bottom of the plate..
6. Non-absorbent formwork is preferred or otherwise, it should be properly oiled to prevent grout adhesion.
7. Thoroughly wet all surfaces prior placement and remove any excess water just before introducing the grout. Bolt holes to be grouted should be cleaned of all debris, dirt and water by oil-free compressed air or vacuum.

Application

Material Preparation

1. Pour 3.4 – 3.8 litres of clean potable water into a mixing container.
2. With the mixer running, slowly add in the total content of the grout.
3. Mix continuously for about 3-5 minutes until a smooth and even consistency is obtained.
4. Flow consistency should be checked and care should be taken to ensure the grout will not bleed.

Placing Procedure

Placing

1. The mixed grout should be placed promptly before it stiffened. Higher temperature will accelerate working time.
2. Pour grout from one side only to avoid air entrapment.
3. Adequate grout head must be maintained at all time to achieve a continuous flow.
4. Use a rod or strap to assist in large/difficult placement as well as to facilitate maximum surface contact.

Curing

As soon as the surface sheen disappear and the grout has begun to stiffen, water pond or cover with damp hessian, plastic sheet

Yield

One 25kg bag of StoCrete MC2001 will yield approximately 0.0130 - 0.0135 m³ of fluid grout.

Consistency on Mixing	Water content (litres / 25 kg bag)
Flowable	3.4 – 3.8

Application Temperature

Minimum application temperature + 8°C
 Maximum application temperature + 45°C

Technical Data Sheet

StoCrete MC 2001

Cleaning Tools Tools can be cleaned immediately after use with water.

Delivery

Packing StoCrete MC 2001 is available in 25 kg bag.

Storage

Storage Life & Condition This product has a shelf life of 12 months from the manufacturing date. Product should always be stored in an unopened bag, dry place, protected from rain, direct sunlight and raised off the floor.

Special notes

Health & Safety Please refer to Safety Data Sheet

Technical Support Please consult the local sales office for further information and any site assistance required.

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
 28, Jalan Rajawali 3
 Bandar Puchong Jaya,
 47170 Selangor, Malaysia
 Phone: +60 3 8080 9066
 Fax: +60 3 8080 9255
info.my@sto.com
www.sto-sea.com

Sto SEA Pte Ltd
 3656/49-52 Green Tower, 16th Floor
 Rama IV Rd, Klongton, Klongtoei,
 10110 Bangkok, Thailand
 Phone: +66 2 1684 921 Ext. 230
 Fax: +66 2 1684 999
info.sg@sto.com
www.sto-sea.com

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

*Product images may differ from the actual product.