

Technical Data Sheet

StoCrete NSG S

High performance, pumpable non-shrink grout for preplaced aggregated pressure grouting



Characteristics

- Area of application**
- Concrete repairs and pressure grouting
 - To provide heavy duty support beneath load bearing units such as machine base plates and crane rails

Properties

- Ease of application
- Positive expansion to ensure effective contact and support
- Minimal downtime
- Elimination of site batching errors
- High early strength and low permeability
- Elimination of staining or deterioration
- Chloride-free permitting use in contact with reinforced steel
- Good flow characteristics to allow ease of application

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		30 N/mm ²	
@ 7 days		60 N/mm ²	
@ 28 days		70 N/mm ²	
Expansive characteristics	ASTM C940		
@ 3 days		< 0.4 %	
@ 28 days		< 0.4 %	
Setting time	ASTM C953		
Initial set		290 mins	approx.
Final set		335 mins	approx.
Final bleeding @ 3 hours	ASTM C940	0.0 %	

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.

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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 50 mm 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 100 mm must be maintained. In general, this can be established as 1/5 of the travel distance for the grout.
5. All concrete surfaces to be grouted must be sound, clean and free from oil, grease, laitance or any other loose adhering particles.
6. On the opposite side, the form should be minimum 50 mm away from the plate and extend at least 25 mm above the bottom of the plate.
7. Non-absorbent formwork is preferred; otherwise, it should be properly oiled to prevent grout adhesion.
8. 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 4.5 - 4.8 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 stiffens. Higher temperature will accelerate working time.
2. StoCrete NSG S can be placed in thickness from 20 mm to 100 mm in a single pour. For thicker section, it is necessary to fill out the grout using well graded, cleaned aggregates in sizes range of 4 mm – 10 mm. Quantity of aggregate added to the grout should not exceed 1 part aggregate to 1 part grout by weight.
3. Pour grout from one side only to avoid air entrapment.
4. Adequate grout head must be maintained at all time to achieve a continuous flow.
5. 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 or other approved means such as Sto curing compound to prevent premature drying.

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Yield	One 25 kg bag of StoCrete NSG S will yield approximately 0.0130 - 0.0140 m ³ of fluid grout						
	<table border="1"> <tr> <td>Consistency on mixing</td> <td>Water content (litres / 25 kg bag)</td> </tr> <tr> <td>Flowable</td> <td>4.5 – 4.8</td> </tr> <tr> <td>Trowellable</td> <td>3.8 – 4.3</td> </tr> </table>	Consistency on mixing	Water content (litres / 25 kg bag)	Flowable	4.5 – 4.8	Trowellable	3.8 – 4.3
Consistency on mixing	Water content (litres / 25 kg bag)						
Flowable	4.5 – 4.8						
Trowellable	3.8 – 4.3						
Application Temperature	Minimum application temperature + 8°C Maximum application temperature + 45°C						
Cleaning Tools	Tools can be cleaned immediately after use with water.						
Delivery							
Packing	StoCrete NSG S 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.

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