

STELLA-CRETE

NSG-300

**PREMIUM
NON SHRINK GROUT**

High Flexural With Anti Crack



***Joints between elements in
concrete and pre-cast
concrete structure with heat
reduction characteristics***



**KEEP
COOL & DRY**



**GREY
POWDER**



**BUATAN MALAYSIA
MADE IN MALAYSIA**

NSG-300 PREMIUM NON SHRINK GROUT

Premium Non-Shrink Grout 300 is a pre-bagged mixed of graded silica with high strength cement and special formulated self compacting grout and good flow properties for filling of rigid joints between elements in concrete and pre-cast concrete structure with heat reduction characteristics. It also suitable for large concrete repair and top up.

Product Information		Packaging: 40kg
Appearance/ Colour	Grey Powder	
Shelf Life	6 Months from the date of production	
Storage Conditions	Proper storage in original unopened and undamaged sealed packaging in dry conditions at temperature between +10°C and +30°C. Keep away from direct sunlight, rain and water and do not stack more than 15 layers.	
Dry Solid Content	100%	
Mass Density	2200 kg/m ³ ± 2%	
Chloride Ion Content	None	
Maximum Grain Size	2 mm	

TECHNICAL DATA	
PH Of Mix	> 11
Mixing ratio, water with 40 KG bag	
- Trowellable mix	5.2 - 6.0 Liters
- Pourable mix	6.0 - 6.8 Liters
- Flowable mix	6.8 - 7.6 Liters
Flow (ASTM C 939) (s)	35 (using 19% water)
Temperature Range	+5°C to +40°C
Pot Life	30 Minutes (at +25°C)

FINAL PERFORMANCES	
Compressive Strength	with 19% of water
- 1 Day	30 Mpa
- 7 Days	50 Mpa
- 28 Days	60 Mpa
Flexural Strength	with 19% of water
- 1 Day	5 Mpa
- 7 Days	7 Mpa
- 28 Days	8 Mpa
Tensile Adhesion Strength	
- 7 Day	> 1.0 Mpa
- 28 Days	> 1.5 Mpa
Capillary Absorption	~0.02 kg/m ² .h ^{0.5}
Bleeding	None
Volume Expansion	1%

CONTACT US

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PRODUCT FOR PROFESSIONAL USE

ADVANTAGES

- Pre-bagged with high quality consistency
- Easy to mix for pouring and pumpable application
- Self and highly compact
- Excellent impermeability of water
- Excellent adhesion to steel and concrete
- Excellent resistance to dynamic mechanical stress
- Modulus of elasticity and thermal expansion coefficient similar to those of high quality concrete
- High flexural with anti crack properties
- Impact and vibration resistant
- Non-toxic and non-corrosive
- Placing thickness up to 500 mm

RECOMMENDATIONS

- Do not add cement or additive to Premium Non Shrink Grout
- Do not add water when the mix begins to set
- Do not apply Premium Non Shrink Grout at temperatures below +5°C
- In hot weather, the mixed material shall expose to direct sunlight and use cold water for grout mixing.
- In low temperatures it is advisable to use water that is around +20°C.
- In hot and/or windy whether, the surface of the grout shall be protected from rapid water evaporation that can cause the formation of surface cracks due to plastic shrinkage.
- It is advisable to apply curing compound such as cover with plastic sheets for at least 24 hours.

APPLICATION EXAMPLES

- Filling of rigid joints between elements in concrete and precast concrete structures
- Repair of concrete structures by gravity pour or pressure grouting thods
- Enlargement of beams and columns
- Bridge columns and beams
- Grouting of machine base-plates and bridge bearings
- Execution of underpinnings / Concrete piling

APPLICATION PROCEDURE

Preparing the concrete substrate

- The surface must be structurally sound and clean, free of oil, grease, wax, dust, sand, dirt, laitance, paints, efflorescence, curing compounds and loose material of any type

Preparing the steel substrate

- Remove completely rust, oil, grease, scale and coating from steel surface inishing.

PREPARING THE GROUT

Pour approximately 80% of the required water into a clean container and slowly add Premium Non-Shrink Grout 300 while mixing continuously. Add the remaining water as necessary to achieve the desired mix.

Mix for 1 to 2 minutes, making sure to scrape free any powder left sticking to the sides of the container. Remix for another 1 to 2 minutes until a fluids homogeneous paste is obtained. According to the quantities to be prepared, a grout mixer or a mechanical mixer can be used, paying careful attention to avoid the formation of air bubbles. **DO NOT MIX MANUALLY.**

ADDITION OF 8-10mm AGGREGATES

For filling cavities with section thickness greater than 60 mm, add washed 8 to 10mm aggregates not exceeding 100% by weight of Premium Non Shrink Grout to reduce heat build-up during the cement hydration process. It is advisable to carry out preliminary tests at the work-site in order to determine the appropriate mix consistency and work method.

APPLICATION

- 40kg of NSG-300 with 6.8 - 7.6 liters of mix water
- After mixing done, stir lightly with spatula for few seconds to release any entrapped air.
- Immediately pour or pump Premium Non-Shrink Grout 300 into the rigid joints between elements in concrete and precast concrete structures or prepared formed-work.
- Pour or pump Premium Non-Shrink Grout 300 within 40 minutes after mixing.
- Pouring or pumping homogeneously mixed Premium Non-Shrink Grout 300 shall perform in single direction only with continuous flow to avoid the formation of voids and to facilitate the discharge of entrapped air.
- Not to entrap any air during the pouring and pumping process as this may affect the bonding properties of the grout.

CLEANING

Fresh grout can be removed from tools with water, after curing, material can only be removed mechanically.

SAFETY INSTRUCTIONS FOR PERPARATION AND APPLICATION

The applicator is advisable to use protective gloves, mask and goggles and take the usual precautions for handling chemicals. If the product comes in contact with the eyes or skin, wash immediately with plenty of clean water. If uncomfortable feeling is persistent, seek medical expert consultation.

For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

Packaging: 40kg