

SmartNS Grout SP

Non-Shrink Grout for Semi-Precast and Repair

SmartNS Grout SP is a pre-packed single component cementitious grout, it is non-shrink and chloride-free, consists of graded sand, cement and chemical additives. It is ideal for in-situ connection, small patch repairs.



FIELDS OF APPLICATION

- Wall Panel joint mortar grout
- Chloride wall patch repair
- Filling of Precast joints and gaps
- Floor patching
- Base plate grouting and anchoring for anchor bolts and bridge bearing plates

BENEFITS

- Non shrink
- Chloride free
- Good workability
- Pre-packed and premixed which allows for convenient handling, therefore minimizing the error of on-site mixing
- Suitable for interior and exterior applications

TECHNICAL DATA (under laboratory conditions)

- "Fluid" mixture has a flow of 10 to 30s (when tested in accordance with ASTM C939).
- "Flowable" mixture has a flow of 125% to 145% (when tested in accordance with ASTM C827 at 5 drops).
- "Plastic" mixture has a flow of 100% to 125% (when tested in accordance with ASTM C827 at 5 drops).
- "Stiff Plastic" mixture has a flow less than 100% (when tested in accordance with ASTM C827 at 5 drops).

PROPERTY	TYPICAL RESULTS	
Compressive Strength @ 28 days (ASTM C109)	≥ 40 N/mm ²	
Flow Consistency (ASTM C1437)	30 - 45%	
Volume Change (ASTM C827)	0 to 3%	
Setting Time (BS EN 196 Pt 3)	Initial Set	Final Set
	≥ 1 hr	≤ 4 hrs
Bond Strength (BS EN 12615)	> 1.5 N/mm ²	
Wet Density	2000 - 2200 kg/m ³	
Yield	0.0135 m ³	

- All the data shown are based on controlled laboratory test (T=27±2°C and RH=60%)

In actual site application, slight water/ powder ratio adjustment can be made to achieve consistency desired.

SURFACE PREPARATION

- All defective concrete should be removed until sound concrete is found.
- Avoid feather edging, edges of the areas for repair must be saw cut to a depth of at least 10mm.
- Ensure surfaces to be treated are clean and free from any loose dust, oil, grease or other contaminants.
- Exposed reinforcing bars must be cleaned and protected with re-bar primer.
- In order to ensure optimal bonding, the substrate should be pre-wetted or primed with a bonding agent (**SmartSBR Latex** recommended) before applying **SmartNS Grout SP** slurry (2 part of **SmartNS Grout SP** to 1 part of water). Wet-on-wet application of the **SmartNS Grout SP** mortar is essential in this case.

DISCLAIMER

All information was prepared carefully, using current references available to us. Information provided is to the best of our knowledge and belief, accurate and reliable as of the date indicated. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself/ herself as to the suitability and completeness of information provided here for their intended use. We do not accept liability for any loss or damage that may occur from the use of this information.

MIXING

- **SmartNS Grout SP** should be mixed with a variable speed drill fitted with a paddle type mixer blade.
- Add 25 kg of **SmartNS Grout SP** into a mixing pail slowly with approximately 3 - 3.5 litres of water.
- Mix for 3 - 5 minutes until a lump-free homogeneous consistency is obtained.

PLACING

- The well-mixed **SmartNS Grout SP** should be applied with a trowel, float, gloved hands or other suitable tools.
- For horizontal application, **SmartNS Grout SP** can be applied at a thickness of 10 - 40mm in one layer. For vertical applications, the wet mix can be adjusted to drier patching consistency for application of up to 40mm in one layer.
- **SmartNS Grout SP** is not recommended for overhead application.
- Thicker layers may be applied in several operations. Scratch the preceding layer to provide a mechanical key. Application of the next layer may proceed as soon as the preceding one has fully set.

CURING & TREATMENT

- Protect the casting against rapid drying due to strong winds and / or high ambient temperatures by covering with plastic film, wet hessian or liquid membrane curing/ sealing compounds.
- Curing compound is recommended on the finished surface but not on intermediate layers.
- Rapid moisture loss from the exposed surface may result in plastic cracking as well as excessive dusting in later age.

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COVERAGE / YIELD

CONSISTENCY	MIXING WATER	YIELD
Plastic	3.75 litres	12.7 litres
Stiff-Plastic	3.25 litres	12.21 litres
Semi-Precast	3.15 litres	12.0 litres

PRECAUTIONS

- Avoid eye and skin contact as the product is alkaline.
- Gloves, goggles and dust mask should be worn.
- Avoid inhalation of dust during mixing.
- Wash thoroughly after handling.
- In case of eye contact, flush with plenty of water. Seek medical help immediately.

PACKAGING & STORAGE

SmartNS Grout SP is supplied in 25 kg bags and has a shelf life of 12 months if stored in a cool and dry place in sealed packing with sheltered protection from rain and sunlight.

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