

mart-GROUT NS GP

POURABLE, NON-SHRINK CEMENTITIOUS GROUT

DESCRIPTION

mart-Grout NS GP is a pourable, high strength, non-shrink cementitious grout designed for structural grouting of columns, stanchions, baseplates and anchors where it is essential to fill gaps between structures and fittings.

CHARACTERISTICS/ADVANTAGES

- Premixed and ready to use (just add clean water)
- Non-corrosive (will not attack reinforcement)
- Non-metallic
- Non-bleeding
- Excellent adhesion
- Good pour characteristics
- Excellent high early and initial strengths
- Non-shrinking characteristics
- Adjustable consistency (controlled by the amount of water added)

TYPICAL USES

mart-Grout NS GP is versatile and designed for:

Machine Base Grouting:

- Grouting of turbine and generator bases
- Head gear winders, gear box and haulage winch bases

Structural Grouting Applications:

- Concrete column & stanchion base plates
- Crane rail saddles
- Puddle flanges
- Precast structures and support beams
- Anchor bolts & starter bars

Structural Concrete Repairs:

- Grouting cavities and voids in concrete

PRODUCT DATA

- **Appearance:** Powder
- **Colour:** Grey
- **Coverage:** 1 bag of mart-Grout NS GP mixed with 4.5lt of clean mixing water will yield 13,5lt of mortar
- **Packaging:** 25kg plastic lined polypropylene bags
- **Shelf Life:** 12 months in original unopened bags, when stored in the correct storage conditions
- **Storage Condition:** Store in a dry cool area, temperature between 5 -25°C

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APPLICATION PROCEDURE

Surface Preparation:

- Concrete surface must be structurally sound, fully cured (28 days)
- Thoroughly clean all surfaces and substrates of chemical deposits, dirt, grease, form oils, efflorescence, paint, or other contaminants that could interfere with bonding.
- All loose concrete should be removed.
- Saturate concrete to be grouted for a minimum period of at least 6 hours prior to grout placement
- Remove all pooled water prior to application.

Priming/Structural Bonding:

- No primer required, only pre-saturation of concrete with water prior to application.
- For structural bonds use- mart-Bond 6 Wet to Dry Epoxy Adhesive (refer to TDS).

Aggregate Extension:

If aggregate extension is required, up to 12.5kg of stone can be added per 25kg bag of **mart-GROUT NS GP**. Do not exceed a 19mm aggregate size when extending the non-shrink grout.

Mixing:

- Use cool, clean water, clean tools and clean containers.
- add 2/3 of required water into the clean container.
- Mixing with a mechanical mixer at a slow speed, start adding **mart-GROUT NS GP** slowly whilst mixing.
- add additional water in small increments until desired consistency is achieved (refer to "Typical Values" chart for mix water requirements).
- Mix to a uniform lump free consistency minimum 2 – 3 minutes.
- Warmer temperatures will reduce the working time. The addition of cold water at high temperatures, will aid in adjusting the mix temperature.
- Ensure that grout will not bleed with the amount of water added.
- Non-Shrink Grout should not be re-tempered.
- Smaller quantities can be mixed by hand, adjust water quantities based on kg of grout used.

Typical Values:

Flowable (Pumpable):	4.5 L cool water
Pourable Consistency:	4.0 L cool water
Plastic Consistency:	Less than 3.5 L cool water

PLACING & APPLICATION

- Avoid application in direct sunlight.
- Always apply to a pre-dampened surface. High suction substrates require more dampening than dense substrates. However, there must be no pooled water on the surface before product application.
- Mixed material must be used within 10 minutes or less depending on ambient weather conditions.
- **mart-GROUT NS GP** is easily placed by pouring or pumping and compaction can be accomplished by rodding or tapping.
- Place grout on one side, flowing to opposite and adjacent sides, to avoid air entrapment.
- Grout head, shoulders and excess grout may be removed after initial set has occurred.
- Minimum grout depth = 10mm
- Maximum grout depth = 150mm



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Product Data Sheet

mart-GROUT NS GP

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FORMS

- Standard hard wood, exterior grade wood or metal forming may be used
- Ensure that forms are sealed to a liquid-tight condition to prevent water loss.
- Forms must be designed for adequate venting to avoid air entrapments.
- Do not use tight fitting forms, allow 75mm horizontal clearance and 75 mm vertical clearance for height above the bottom of the baseplate.
- Grout placing head on one the side of the shutter should be at least 150 mm high above the bottom of the baseplate and angled at approx. 45° (Aiding grout flow and access for Roding and tamping equipment)
- For pouring allow a minimum clearance of 75 mm for the entry and 150mm minimum grout head. On the placing side, slope the form to assist in grout movement and to prevent trapping of air.
- Remove the forms after the grout has sufficiently hardened (4 to 6 hours depending on temperature) to avoid damaging and trim edges to desired profile and cure.

LIMITATIONS

- Store unopened bags in dry, cool area out of direct sunlight
- Do not mix more than 4.5lt of water with **mart-Grout NS GP**, overwatering may cause shrinking and cracking.
- Mix only the required amount which can be placed within 10minutes.
- Do not apply if temperature is below 5°C.
- Do not add admixtures, cement, or sand to the grout.
- Proper curing is required.
- Can be used as a concrete floor repair system, in 1m x 1m sections (No greater)
- Cut & break out 1m x 1m sections, minimum depth of 10mm and maximum depth of 150mm.
- For (Priming, application & curing, refer to method statement above)
- **mart-Grout NS GP CANNOT BE USED AS A REPAIR MORTAR OR AS A CONCRETE FLOOR OVERLAY OR UNDERLAY.**

CURING

- Exposed grout shoulders of **mart-Grout NS GP** should be covered immediately after placement for 24 hours to prevent excessive loss of water, especially during hot and/or drying winds in open areas.
- Areas can be covered with wet burlap to retain moisture.
- Alternatively apply a curing agent.

CLEANING

- Use soapy water to clean hands and tools immediately after use.
- Dried material can be removed mechanically.



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MECHANICAL/PHYSICAL PROPERTIES

Type of Grout Mix	Pourable		
Mix Ratio	3.5 – 4.5 L		
Ambient temperature at mixing	25°C		
Yield	12.5 - 13.5lt		
Compressive Strengths	3.5 L (MPa)	4.0 L (MPa)	4.5 L (MPa)
1 Day	≥ 25	≥ 20	≥ 16
7 Day	≥ 50	≥ 45	≥ 40
28 days SANS 50196 - 1	≥ 70	≥ 60	≥ 55
Tensile Adhesion Strength 28 days 3.5 L	0.84 N/mm ²		
Flexural Strength 28 days 3.5 L	9.5 N/mm ²		
SET TIMES			
Initial Set	≥60 min		
Final Set SANS 50196 - 3	≤400 min		
Shrinkage EN 12808-4: 2009 [mm/m] 28 days Standard Conditions	0.5		

HEALTH AND SAFETY INFORMATION

In all cases, consult the Material Safety Data Sheet before use.

Do not breathe dust. In case of inadequate ventilation wear respiratory protection. Wear protective gloves/ protective clothing/ eye protection. Wash face, hands and any exposed skin thoroughly after handling. For further health and safety information refer to the product MSDS.

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