

CEMTEC NS GROUT L



HIGH STRENGTH, NON SHRINK CEMENTITIOUS MICRO CONCRETE

DESCRIPTION

CEMTEC NS GROUT L is designed for critical use where high strength, non-staining characteristics and positive expansion are required. It contains expansive cementitious binder and natural large aggregate. It is highly flowable in nature and can be easily placed, eliminating the need for compaction and vibration

FEATURES & BENEFITS

- High strength and durability
- Non-shrink providing full structural support
- Flowable and self leveling
- Appearance similar to concrete
- Does not contain any added chloride ions
- Can be pumped or poured into the formwork
- Self-compacting in nature, which eliminates the need of compaction and vibration

BASIC USES

- Bedding grouting and void filling
- Columns, walls and beams
- Dams, retaining walls
- Large volume concrete repairs at thickness ranging from a minimum of 25 mm to a maximum of 150mm. Filling depend on the profile of concrete surface.
- Re-profiling pile-caps

SPECIFICATIONS / COMPLIANCES

- Shows positive expansion when tested the mortar in accordance with ASTM Specification C-1090, Standard Test Method for Measuring Changes in Height of Cylindrical Specimens from Hydraulic Cement Grout, at a flowable consistency.
- Meets the performance requirements of ASTM C-1107

TECHNICAL INFORMATION

Typical Engineering Data

The following results were developed under laboratory conditions at 70° F (21°C).

Flowable Consistency
3.25 liter / 25 kgs bag
Flow Rate : 120% Flow (flow table)

Compressive Strength

4" (100mm) cubes
Age Strength
1 day 34 MPa
3 days 44 MPa
7 days 56 MPa
28 days 63 MPa
Flexural Strength ASTM C - 78
28 days 12 MPa
Tensile Strength ASTM C - 496
28 days 5 MPa

Expansion

Tested in accordance with ASTM C -827 and positive expansion (upto 2%) observed
Setting Time ASTM C -191
Initial 3hrs 10 min
Final 4hrs 45 min
Shelf life in original unopened package is 1 year

APPEARANCE

CEMTEC NS GROUT L is a cement based powder incorporated with large aggregate designed to be mixed with water. After mixing and placing, the color may initially appear much darker than the surrounding concrete. While this color will lighten up substantially as the grout cures and dries out, the grout may always appear somewhat darker than the surrounding concrete

DIRECTIONS FOR USE

The contractor and engineer are suggested to consult and review the CMCI "Application Instruction - Cementitious Grouting". The document offers instructions detailing the general installation of CMCI manufactured cement based grout products. The information given here is offered in particular support to the mixing and placing of **CEMTEC NS GROUT L**. This information should be used in conjunction with the Application Instructions guide mentioned above

Consistency
Flowable
Plastic

Estimated water content*
3.25 Liter/ 25 Kg
2.50 Liter/ 25 Kg

(Do not add excess water that will cause bleeding or segregation). More or less water may be required to achieve flow or the desired placing consistency, depending on temperature and other variables. Do not add sand or cement to the grout since this action will change its precision grouting characteristics

Formwork

Determine the work schedule and method of placing NS GROUT L, then prepare rigid and tight formwork to prevent loss of material. The formwork should have properly sealed faces to ensure that no water is absorbed from grout. Care should be taken to ensure that formwork is watertight and constructed in line with normal concreting practice. The unrestrained surface of the grout should be kept as per design

Mixing

while mixing **CEMTEC NS GROUT L** care should be taken to ensure that it is thoroughly mixed and placed as per the manufacturer's instructions. It is essential that a mechanically powered mixer is used. Damp down the inside of the mixer with water prior to mixing the initial batch of **CEMTEC NS GROUT L**. Mixer should be damp but free from standing water. Machine mixing capacity and labour availability

YIELD	yields about 0.013m ³ of flowable grout when mixed with 3.25 liters of water.
PACKAGING	NS GROUT L is packaged in 25kgs bags
COLOR	Contact CMCI tech dept

should be adequate for carrying out the placing operation continuously. Measure 3.25 liters of drinking quality water and pour three-quarters into the mixer, while the machine is in operation. Add one full 25-kg bag of **CEMTEC NS GROUT L** and mix for one minute before adding the rest of water. Mix for further 2 to 3 minutes until a smooth even consistency is obtained. Note that powder must always be added to water and not vice-versa.

Placing

It is essential to place the mixed material quickly in order to gain the full benefit of fluidity and of the expansion process. If placing this product in hot weather, use of cold water that will increase the working time. Standard grouting pumping practice should be followed for pumping **NS GROUT L**. Pumping: If the grout is pumped, the pump and pipeline must be 'grouted' with a rich cement slurry or mortar, discharging the 'grout' as waste. Pumping should be commenced immediately after 'grouting' in this way.

Curing and sealing

As with all cementitious products, proper curing procedures are important to ensure the durability and quality of the structure. To prevent surface cracking, cure with high solids curing compound such as KUREKOTE -75 VOX or CEMTEC KURE N SEAL as described in the general grouting Application Instruction guide. Curing compound must be ordered separately.

CLEAN-UP

Clean tools and equipment with water before the material hardens.

PRECAUTIONS / LIMITATIONS

- Do not add any admixture or fluidifiers
- Proper curing is required.
- Employ cold weather or hot weather grouting practices as the temperature dictates.
- Do not allow to freeze until 4,000 psi (27.6 MPa) attained.
- Do not use material at temperatures that may cause premature freezing

Quality Statement

CMCI manufactures its products at their manufacturing facility in Saudi Arabia as per the Quality Procedures certified to conform with quality Management System described in ISO 9000 series

CMCI provides a comprehensive technical support system for its full range of high performance construction products CMCI also offers full technical field support to consultants, Architects, contractors, applicators and End Users.

"High Quality Construction Chemicals"
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The Technical Specification information and recommendations given are based on the current technical knowledge and the user or his representative is recommended to check the suitability of the product CMCI reserves the right to amend the technical characteristic of the product as part of ongoing research and development. As the work execution is beyond the direct and continuous control of CMCI no warranty and or responsibility is assumed on the performance of work completion executed with use of our products.