

CEMTEC NS GROUT L-SA

NON-SHRINK CEMENTITIOUS MICRO CONCRETE GROUT



DESCRIPTION

CEMTEC NS GROUT L-SA is a ready to use micro concrete grout, designed for critical use where high strength, non-staining characteristics and positive expansion are required. It is made of selected aggregates and expansive cementitious binders. It is highly flowable in nature and can be easily placed, eliminating the need for compaction and vibration.

RECOMMENDED USES

- Bedding grouting and void filling
- Repairing concrete for columns, walls, and beams
- Dams and 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
- Filling of pocket bolt from 100mm up to 500mm deep.
- Closing or filling around pipes in water tank
- Concrete jacketing for footing, columns, beam, and slab
- For Bridge bearing applications

ADVANTAGES

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

SPECIFICATIONS / COMPLIANCES

- **CEMTEC NS GROUT L-SA** meets the performance requirements of ASTM C1107
- **CEMTEC NS GROUT L-SA** Shows positive expansion when tested the mortar in accordance with ASTM Specification C1090, Standard Test Method for Measuring Changes in Height of Cylindrical Specimens from Hydraulic Cement Grout, at a flowable consistency.

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 (ASTM C109)

4" (100mm) cubes

Age Strength

1 day.....34 MPa
3 days 44 MPa
7 days 56 MPa
28 days63 MPa

Flexural Strength (ASTM C78)

28 days-----12 MPa

Tensile Strength (ASTM C496)

28 days----- 5 MPa

Expansion

Tested in accordance with ASTM C827 and positive expansion (up to 2%) observed.

Setting Time ASTM C191

Initial : 3hrs 10 min

Final : 4hrs 45 min

APPEARANCE

CEMTEC NS GROUT L-SA is a cement-based powder incorporated with added precise 5mm size of 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.

COVERAGE	CEMTEC NS GROUT L-SA will yield about 0.013 m ³ of flowable grout when mixed with 3.25 liters of potable water
PACKAGING	CEMTEC NS GROUT L-SA is packed in 25 kg bag
COLOR	Grey Powder

The information given here is offered in particular support to the mixing and placing of **CEMTEC NS GROUT L-SA**. This information should be used in conjunction with the Application Instructions guide.

Consistency	Estimated Water Content
Flowable	3.25 Liter per 25 Kg
Plastic	2.50 Liter per 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 **CEMTEC NS GROUT L-SA**, 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-SA** 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-SA**. Mixer should be damp but free from standing water. Machine mixing capacity and labor availability should be adequate for carrying out the placing operation continuously. Measure 3.25 liters of potable quality water and pour three-quarters into the mixer, while the machine in operation. Add one full 25-kg bag of **CEMTEC NS GROUT L-SA** 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.

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.

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 guaranty and or responsibility is assumed on the performance of work completion executed with use of our products.

Formwork

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 **CEMTEC NS GROUT L-SA**

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 **KUREKOTE 75** as described in the general grouting Application Instruction guide. Curing compound must be ordered separately.

STORAGE

CEMTEC NS GROUT L-SA has as Shelf life of 1 year from the date of production in original unopened package.

CLEAN-UP

Clean tools and equipment with water before the material hardens.

PRECAUTION & LIMITATION

- 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

"High Quality Construction Chemicals"

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