

# PC Grout NS



Non-shrink, non-metallic grout

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## Product Overview

PC Grout NS is a pumpable, dual shrinkage compensated grout, which is self-levelling and provides extended workability when mixed and placed. It can withstand both static and dynamic loads. It consists of only natural aggregate and is an expansive cementitious binder.

## Areas of applications

1. Grouting of base plates of turbines, compressors, boiler feed pumps etc.
2. Concrete repair application where a form and pour materials are required.
3. Repair work for precast columns
4. Machine Foundations
5. Concrete anchors
6. Bridge bearings
7. Rail beds
8. Cavities
9. Masts, Anchor bolts and Fence posts

## Properties

1. PC Grout NS is easy to mix and apply
2. It is non-corrosive and non toxic
3. It exhibits good flow characteristics
4. It also exhibits good pumping properties.
5. It is dense and non shrink
6. It develops strength rapidly.
7. It is impact resistant

## Guidelines for Usage

**1. Surface Preparation:** The concrete, mortar and stone surface should be free from oil, dirt and other surface adhering particles and contaminants. The surface should be prepared by suitable mechanical preparation techniques such as high pressure water jet, grit blasting and scrubbers.

**2. Mixing:** Place about 70 – 80% of premeasured clean water (depending on consistency required –refer to mix ratio) into a clean container and gradually add the whole bag of PC Grout NS into it while continuously mixing. Add the remaining water until the desired consistency is obtained. Mix for 5 minutes with a slow speed drill (500 rpm max.)

**3. Application:** After mixing stir lightly with a spatula for few seconds to release any entrapped air. The grout is then poured immediately into the prepared formwork.

When carrying out base plate grouting, ensure sufficient pressure head is maintained for uninterrupted mortar flow.

For formwork repair, the prepared formwork must be firmly in place and keep watertight.

When placing grout over a large area, it is important to maintain a continuous flow throughout. Work sequence must be properly organised to ensure the uninterrupted flow. In large areas, PC Grout NS may be pumped using heavy duty diaphragm pump. Screw feed and piston pumps may also be used.

### 4. Specific areas of application:

- Grouting under base plate – use pourable consistency
- Formwork grouting (example deep honeycombs, column reinforcement, etc.)
- Pouring method – use flowable/pourable consistency.

- Pre-packed method – use flowable consistency.
- Grouting anchor bolts – use pourable consistency.
- Grouting large volumes – for section thicker than 50mm, it is necessary to fill the PC Grout NS with graded 10 mm aggregates to minimise temperature rise generated during the curing stage. The quantity of aggregates should not exceed 1 part aggregates to 1 part PC Grout NS by weight. For such mixes, a conventional concrete mixer and pump may be used. To further ensure that air entrapped during mixing is allowed to fully escape, it may be necessary to make breather holes. Use still rods or chains to assist the flow of grout where necessary.

**5. Curing:** If formwork type repair is used, leave the formwork in place for at least 3 days. Upon removal of the formwork, cure the exposed surfaces immediately with curing compound or other approved curing method.

## Dosage and Measures

For flowable consistency add 3.75 - 4 ltr per 25 kg bag. Do not add water in an amount that will cause bleeding or segregation. More or less water may be required to achieve desired placing consistency, depending on temperature or other variables. Do not add sand or cement to the grout since this action will change its grouting characteristics.

## Packages available

PC Grout NS is available in 25kg bags.

## Storage and Shelf life

PC Grout NS should be stored away from direct sunlight. It has 6 months shelf life when stored below 40°C in original, dry and unopened packs.

## Safety Measures

1. Do not add Fluidisers or Plasticisers while Mixing.
2. It has to be ensured that proper curing has been done.
3. PC Grout NS must be stored in dry place.
4. Rate of strength gain is significantly affected at temperature extremes.
5. Do not add sufficient water to promote bleeding of the grout.

## Technical data

Aspect		Free flowing grey coloured coarse granular powder
Properties		Flowable consistency
Wet Density		2.3 g/cc
Flow (BS Cone)		~250 - 290mm
Layer thickness		5 - 55 mm per pour
Setting time		~5 - 8 hrs
Compressive strength	7 days	~55N/mm <sup>2</sup>
	28 days	~65N/mm <sup>2</sup>

For further clarifications Please contact on below address

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