

INSEE Mortar 71

General Purpose Non-Shrink Grout

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with shrinkage compensation additive is used for grouting applications such as concrete structure repairing or cavity, voids of concrete structural, machine baseplate, concrete pillars, steel columns, bridge bearing, precast wall, construction joint.

INSEE MORTAR 71 General Purpose Non-Shrink Grout is consisted of premium quality Portland cement type I and special chemical agents for good and effective grouting work.

Advantages

- Excellent flowability
- Shrinkage compensation
- No bleeding
- Can be used with pump machine
- Fine filler that can be used to fill 10-mm gap
- Impact load withstand
- Non-toxic and non-corrosive
- Certificated by TIS 2701-2559 Hydraulic cement grout

Applications

It is used for grouting applications such as concrete structure repairing or void, cavity grouting with a suitable thickness of 10 to 150 mm.

Surface Preparation

1. The new concrete should already be built for at least 28 days.
2. Clean the surface from all dusts, dirt, oil stain, grease, mould release agent, and other foreign substances.
3. The substrate should be rugged or rough for the best mechanical bonding.
4. The concrete substrate should be saturated. There should not be a water content on the surface before using the grout.
5. The formwork material must not absorb water and must be firmly installed with no leakage.
6. In case that the area for non-shrink grout is large, there should be a joint in between for expansion, in order to decrease a chance of cracking in the structure.
7. For more details, please contact our sales representatives or technical support team



Technical Data

Water Demand at Flowable State	3.75-4.00 litre/bag
Quantity per 1 cubic metre with water content at 292.5 litre	78 bags
Bulk Density	Approx. 1.50 kg/litre
Wet Density (at 15% of Water Content)	Approx. 2.25 kg/litre

Mixing

1. Weigh or measure water per usage into container. Carefully and completely pour all cement grout into the water within 30 seconds. Then use the mixer at 400 – 600 rpm to mix them for another 2-3 minutes or until it is homogeneously blended.
2. Leave the mix for a while in order to decrease air bubbles that might be created during mixing process.
3. In case of thick mixed application, it is recommended to mix in small amount, so that the mix will be blended more easily.
4. It is not recommended to increase amount of water in the mix than the recommended ratio.

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Instruction

1. It is recommended to build hopper slide or bucket to help cement grout to flow continuously.
2. Pouring of cement grout should be done from either side with constant and continuous pressure control until it is full, to prevent air entrainment and layers.
3. Cement grout may need to be tamping by a wire to make it fill all gaps and to remove air bubbles trapped inside during pouring. But it is not recommended to use concrete vibrator as it may create undesired layers.
4. ¹Pouring should be done at temperature around 20-35 degree Celsius. If the pouring is done at lower temperature, the grout will take longer time to set and lead to slower development of compressive strength. If done at high temperature, grout flow rate will decrease because cement will set faster, and it may lead to cracks.

Packaging

25 kg/bag

Storage & Shelf Life

Product in sealed packaging has a shelf life of 12 months since manufacturing date. Store it in a dry area with good air ventilation.

Curing

It should be protected from having contact with wind and direct sunlight. When non-shrink grout reach final setting time (not dent when pressed), curing should be continuously done by water for at least 3-4 days and covered by a plastic or sackcloth bag to control its moisture, or by fresh concrete curing compound, with instruction of the manufacturer.

Precaution

- Avoid pouring cement grout onto hot surface with temperature higher than 40 degree Celsius.
- This product is non-toxic and non-flammable. But it has alkaline property. Worker should wear gloves and safety glasses while working with grout. If it makes contact with skin, cleanse it by clean water. If it makes contact with eye, worker must visit doctor immediately.
- Use grout in open area with good air ventilation.
- Must not mix grout with sand or other chemical agents.
- Follow recommended instruction in order to achieve the best and most effective grouting result.

Water Content (%)	Flow Rate (seconds) JHS 312 (J-14 Funnel)	Bleeding (%) ASTM C 232	Compressive Strength (kg/cm ²) / ASTM C109			
			1 Day	3 Day	7 Day	28 Day
15	≤12	0	≥ 350	≥ 450	≥ 550	≥ 700
16	≤10	0	≥ 300	≥ 400	≥ 500	≥ 650

Remark 1. If ambient temperature is higher than recommendation, using cold water to mix cement grout may help to reduce a chance of cracking. For more details, please contact our sales representatives or technical support team.