

Flo-Grout PC100

Non-shrink cementitious grout for precast concrete units



DESCRIPTION

Flo-Grout PC100 is a non-shrink, chloride-free cementitious grout specially designed to fill the voids and gaps between the precast concrete elements.

Flo-Grout PC100 consists of cement, selected well graded and non-reactive aggregates and special additives and designed to give excellent flow properties, shrinkage compensation, frost resistance, and high compressive strength.

APPLICATIONS

- » Filling the gaps and voids between precast concrete units.
- » Filling cracks, holes and grooves in concrete substrates.
- » Filling of shutter tie rod openings.

ADVANTAGES

- » Shrinkage controlled mortar, reduces the risk of cracking due to shrinkage and ensure full contact with host concrete.
- » Easy to apply, single component, requires only addition of water.
- » Low permeability to water, providing excellent protection to steel reinforcements and host concrete.
- » Cost effective.

METHOD OF USE

JOINT SURFACE PREPARATION

Surfaces must be clean and free from dust, grease, oils and all other contaminants. The width of the joint must be at least 15 mm. If the joint is open from the both side, use a stopper board on one of the sides.

Primer is not required because dampening the substitute with clean water is recommended before applying Flo-Grout PC100.

MIXING

To ensure proper mixing, a mechanically powered mixer or drill fitted with a suitable paddle should be used. 3.4 - 4.0 liters of clean water for each 25 kg bag should be added to clean container.

The powder is then added slowly to the water while mixing continuously with low speed mixer/drill (400 - 600 rpm). Mixing time should be continued for 3 minutes until uniform consistency is obtained.

TECHNICAL PROPERTIES @ 25°C:

Compressive strength:	≥ 40 MPa @ 7 days
ASTM C109/109M-02	≥ 50 MPa @ 28 days
Pre-hardening volume change:	Up to 3%
ASTM C940	
Fresh wet density:	2.15 ± 0.10 g/ cm ³
Bleeding:	Nil
ASTM C940	
VOC:	< 5 g/ ltr
ASTM D2369	

*Typical properties @ 3.5 litre/25 kg bag.
Compressive strength should be kept under restraint for the first 24 hours.*

PLACING AND FINISHING

After mixing, the mortar is pumped into the joints and leveled with a steel trowel. If the joint is opened on the both sides, place a stopper board on one side of the joint.

Remove the stopper board once sufficient amount of time has elapsed depending on the working conditions and use a trowel to finish the joint.

The mortar can be applied using a normal screw pump. Pump the mortar carefully into the joints to ensure that the joint is thoroughly filled with the material and obtain a structurally functional joint.

For the application behind reinforcement bars, a piece of steel tube with a pointed tip is attached to the hose to allow the ease of application.

Important: Do not vibrate the mortar in the vertical joints.

CURING

As Flo-Grout PC100 is a cementitious material, it should be cured in a similar method to concrete. Curing can be conducted by using Setseal 22 or by wet hessian sheets covered with polyethylene sheets.

Notes:

- » At low temperatures (below 8°C), warm water is recommended to achieve the early strength. And the stopper board should be kept for a longer time.
- » At high temperatures (35°C and above), cold water (less than 20°C) must be used for mixing.





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CLEANING

All tools should be cleaned immediately after finishing by clean water. Hardened materials can be cleaned mechanically.

PACKAGING

Flo-Grout PC100 is available in 25 kg bags.

YIELD

Approximately 13 - 14 litre per 25 kg bag (74 bag/m³).

STORAGE

Flo-Grout PC100 has a shelf life of 12 months from date of manufacture if stored at temperatures between 2°C and 50°C in original unopened bags.

If these conditions are exceeded, DCP Technical Department should be contacted for advice.

CAUTIONS

HEALTH AND SAFETY

Flo-Grout PC100 may cause irritation to skin or eyes. In case of accidental contact with eyes, immediately flush with plenty of water for at least 10 minutes and seek medical advice if necessary.

For further information refer to the Material Safety Data sheet.

FIRE

Flo-Grout PC100 is nonflammable.

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