

ConGrout GP

General Purpose Non-Shrink Cementitious Grout

DESCRIPTION

ConGrout GP is a ready to use, non-shrink cementitious dry powder. It's a blend of Portland cements, graded fillers and chemical additives which impart controlled expansion in the plastic state whilst minimizing water demand.

The addition of a controlled amount of clean water produces a flowing non shrink grout for gap thicknesses up to 100 mm. The low water demand ensures high early strength. The graded filler is designed to assist uniform mixing and produce a consistent grout.

USES

ConGrout GP is used for general purpose grouting where it is essential to eliminate shrinkage when completely filling the void between a base plate and a substrate.

- Grouting of Machinery & rail base plates.
- Bedding
- Void filling
- Floor panel repairing where high early strength is required
- Anchoring of wide range of fixings

ADVANTAGES

- Non-Shrink
- Flexible consistency
- High early strength
- High bond strength with concrete and steel.
- Impermeable

TECHNICAL SPECS & PROPERTIES

Appearance	Cementitious Powder
Packing	20 Kgs. Bag
Mixing of Water	Trowel able 3.0 – 3.5 liters Flow able 3.5 – 4.0 liters
Density	Approximately 2,240 Kg./- M ³
Setting Time	Initial : 2.5-2.75 Hrs. Final : 4.5-5 Hrs.
Compressive Strength	1 day = 26 MPa 7 days = 44 MPa 28 days = 62 MPa
Flexural Strength	1 day = 2.5 MPa 7 days = 10 MPa 28 days = 11 MPa
Shelf Life	12 Months at 15-30 ⁰ , stored in covered area.

APPLICATION INSTRUCTIONS

Surface Preparations:

The substrate surface must be free from oil, grease or any loosely adherent material. If the concrete surface is defective or has laitance, it must be cut back to a sound base. Bolt holes or fixing pockets must be blown clean of any dirt or debris.

Presoaking:

Several hours prior to grouting, the area of cleaned foundation should be flooded with fresh water. Immediately before grouting takes place, any free water should be removed with particular care being taken to blow out all bolt holes and pockets.

Base plate:

It is essential that this is clean and free from grease, oil or scale. Air relief holes should be

provided to allow venting of any isolated high spots.

Leveling Shims:

If these are to be removed after the grout has hardened, they should be treated with a thin layer of grease.

Formwork:

The formwork should be constructed to be leak proof. This can be achieved by using foam rubber strip or mastic sealant beneath the constructed formwork and between joints. In some cases it is practical to use sacrificial semi dry sand and cement formwork. The formwork should contain outlets for presoaking.

Unrestrained surface area:

This must be kept to a minimum. Generally the gap width between the formwork and the plate edge should not exceed 150 mm on the pouring side and 50 mm on the opposite side. It is advisable to have no gap at the flank sides.

MIXING AND PLACING

For best results a mechanically powered grout mixer should be used when quantity of 25 kg is used, a slow speed drill fitted with a high shear mixer is suitable. Larger quantities will require a high shear vane mixer. Do not use a colloidal impeller mixer. To enable the grouting operation to be carried out continuously, it is essential that sufficient mixing capacity and labor are available. The use of a grout holding tank with provision to gently agitate the grout may be required.

Consistency of mixed grout: The quantity of clean water required to be added to a 25kg bag to achieve the desired consistency is given below.

Trowel able	3.5 – 4.0 liters
Flow able	4.0 – 4.5 liters

The selected water content should be accurately measured into the mixer. The total contents of the **ConGrout GP** bag should be slowly added and continuous mixing should take place for 5 minutes. This will ensure that the grout has a smooth even consistency.

Placing: At 20°C, place the grout within 20 minutes of mixing to gain the full benefit of the expansion process **ConGrout GP** can be placed in thicknesses up to 100mm in a single pour when used as an under plate grout. For thicker sections it is necessary to fill out **ConGrout GP** with well graded silt free aggregate to minimize heat buildup. Typically a 10 mm aggregate is suitable. Any bolt pockets must be grouted prior to grouting between the substrate and the base plate. Continuous grout flow is essential. Sufficient grout must be prepared before starting. The time taken to pour a batch of grout must be regulated to the time to prepare the next one. Pouring should be from one side of the void to eliminate any air or presoaking water from being trapped under the base plate. It is advisable to pour the grout across the shortest distance of travel. The grout head must be maintained at all times so that a continuous grout front is achieved. Where large volumes have to be placed, **ConGrout GP** may be pumped. A heavy duty diaphragm pump is recommended for this purpose. Screw feed and piston pumps may also be suitable.

Curing: On completion of the grouting operation, exposed areas should be thoroughly cured. This should be done by the use of a ConCure WB membrane, continuous application of water and/or wet hessian.

PACKAGING

ConGrout GP is supplied in 20 Kgs. Bags.

STORAGE

ConGrout GP has a shelf life of 12 months. Its PU based resin must be stored in the original unopened containers at 5^o C-30^o C.

HEALTH & SAFETY PRECAUTIONS:

Where temperatures is less than 5^o C or greater than 35^o C are encountered, contact our Technical Staff for specific advice. ConGrout GP is non-toxic, but it is alkaline in nature. Any contact with eyes or skin should be washed off with soap and clean water. Protective gloves, goggles and clothing should be worn. Repeated contact with cementitious products can cause sensitization in some people handling this type of product. Where this occurs, seek medical advice before continuing use.

TECHNICAL SERVICES:

A trained RADIANT representative is available to assist in the preparation of specifications, and the resolution of concrete problems in the field.

Important Note:

RADIANT Construction Technologies manufactures wide range of construction chemicals, including admixtures, concrete repairing mortars, curing compounds, adhesives, concrete protection coatings, waterproof coatings, grouts & Tile Bond.

Separate Technical Data Sheets are available for these products.