

Non-Shrink Grout

Packaging



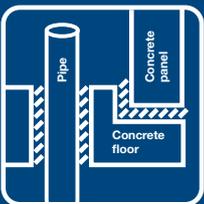
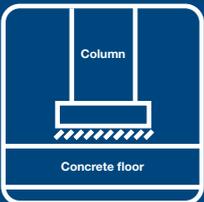
Mixing



Application



Uses



Substrates

Concrete
Brick, Block
Cement render

Class A expanding grout

Description

A premixed, structural, non-shrink, class A cement grout. An expanding non-ferrous grout consisting of a dry, premixed blend of Portland cement and graded, siliceous aggregate with set regulating and reactive chemical agents.

Contains no calcium chloride.

Uses

- Underpinning and brickwork repairs
- Grouting of machine bases, column bases (steel and precast concrete) anchor bolts and similar grouting applications
- Patching holes in masonry surfaces

Features

- Controlled expansions, ensuring positive surface contact
- No rusting or staining on exposed edges
- Premixed, addition of water only needed
- Apply dry-pack, rammed, trowel, poured or pumped

Performance Data

Strength

The following strength development pattern is typical for a Plastic Mortar Mix.

Non-Shrink Grout: Water ratio - 50 parts by weight to 7 parts by weight.

Compression Strength

(50.8mm cubes restrained) (ASTM C109)
15MPa (1 day)
50MPa (7 days)
60MPa (28 days)

Dry-Pack Mortar Mix has higher strength and Flowable less strength.

Expansion

Free expansion - approximately 2.9%.
Expansion is complete in 3-5 hours.

Setting time

Non-Shrink Grout will develop initial set in approximately 1.5 hours @ 22°C.
Lower temperatures will increase set times.

Coverage (Approximate)

For each cubic metre of grout required allow approximately 100 x 20kg bags.

Specification

The **Non-Shrink Grout** will be a non-metallic cement grout and shall have a minimum compression strength of 60MPa, such as **Non-Shrink Grout** manufactured by **Construction Chemicals** and shall be applied in accordance with the manufacturer's instructions.

Surface Preparation

All surface laitance and unsound concrete must be chipped away or mechanically abraded so that a reasonably rough, but strong sound

surface is provided. All surfaces must be free from oil, grease and dust, this particularly applies to the underside of bed plates, bolts, pipes or other materials which may have surface contact with the grout. After cleaning, saturate the concrete surfaces with clean water for approximately 6 hours prior to applying **Non-Shrink Grout**. Ensure that no freestanding water is present on surfaces of foundations or in bolt holes before applying **Non-Shrink Grout**.

Mixing

Slowly add powder to liquid and mechanically mix to achieve a uniform, homogenous mix. Use as little water as is required for ease of placement.

Flowable Grout - Up to 4 litres water to 20kg **Non-Shrink Grout**.

Plastic Mortar Mix - Approx. 3 litres water to 20kg **Non-Shrink Grout**.

Dry-Pack Mortar Mix - Approx. 2 litres water to 20kg **Non-Shrink Grout**.

Job conditions, including temperatures, may require adjustments as may be essential for practical purposes. Small trial batches to ascertain the best working consistency for the operation are recommended.

Use mechanical mortar mixes, preferably of the paddle or revolving drum type. Do not hand-mix. Allow approximately 3-5 minutes mixing. Thorough mixing is essential for achieving maximum results and allow to stand so entrapped air can escape.

Non-Shrink Grout should be placed within 1/2 hour of mixing. During that time, keep material in mixer well agitated. After 1/2 hour discard any grout mix that shows signs of stiffening.

Application

Flowable Non-Shrink Grout

May be used with low pressure cement grout equipment or may be hand rodded into restrained sections. High points must be adequately vented to allow entrapped air to escape.

Plastic Non-Shrink Grout

May be rodded into place or trowelled where freedom of movement permits. Consistency can range from a thick paste to a smooth plastic mix.

Dry-Pack Non-Shrink Grout

Must be firmly pressed or rammed into place. Use metal or hardwood tamping tools and suitable trowel equipment. Consistency should allow forming into firm hard ball without cracking.

Note: Use clean equipment at all times. Wash mixers, pressure equipment and hand tools with clean water promptly after use.

Application

Placing the grout

- Formwork should be leak-proof and formed so that the sides are above the underside of the base plate or area to be filled
- Use a suitable head box to ensure a continuous grout flow
- Pour/place grout from one side to minimise trapped air
- Maintain the grout head to achieve a continuous grout flow. Rod and tamp in grout in short strokes and ensure grout contact with the top plate
- Do not use mechanical vibrators as this will cause segregation
- Discard material that has stiffened
- Place grout within 30 minutes of mixing
- Application thickness minimum 10mm and maximum 150mm. Add 20-30% stone aggregate to reduce heat of thick sections. Apply grout in sections and allow previous sections to cool and set (5-8 hours @ 23°C) before proceeding.

Temperature

For optimum performance a range between 18-25°C is recommended during mixing and for 48 hours after placement. At temperatures above 30°C set times are reduced and can be increased by using cold water, applying in the early morning and sheltering work from the sun and wind.

Curing

Curing is required to achieve grout strength and must commence immediately after placement and for 7 days (minimum). Use plastic sheets, wet hessian or a curing compound to protect the grout from wind and sun.

Storage

Store in dry, cool conditions.

Shelf Life

When stored in the original, unopened packaging, in a dry place @ 23°C @ 50% relative humidity, the product has a 12 month shelf life.



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The information contained in this technical publication is based on our current knowledge and experience and is provided as a guide only. In view of the many factors that may affect application it is the user's sole responsibility to ensure suitability for a specific purpose.

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