



SPECgrout C3

SHRINKAGE COMPENSATED, HIGH FLUIDITY FILLED GROUT

DESCRIPTION

SpECgrout C3 is supplied in 25kg hermetically sealed polyethylene bags and only requires the addition of the specified amount of clean water to produce a fluid grout for pouring or pumping into large voids under machine base plates or between structural units.

SpECgrout C3 consists of Portland cement, selected graded silica aggregates and additives. The low water/powder ratio ensures a grout of high compressive strength and excellent flow characteristics.

TYPICAL USES

SpECgrout C3 is recommended for grouting gaps where the thickness is not less than 75mm and not greater than 500mm.

In general, pre-bagged cementitious grouts without aggregate are only suitable for gaps up to 100mm. Grouting larger gaps normally requires the addition of larger aggregate to reduce the exotherm produced during the hydration process and the consequent risk of thermal cracking.

SpECgrout C3 contains aggregate that reduces excessive heat build up making the product especially suitable for deep voids under machine base plates, voids around and beneath ground tanks and large bolt pockets.

ADVANTAGES

- Unique non-metallic shrinkage compensation system providing maximum contact between baseplate and hardened grout.
- Extremely high flow characteristics with excellent retention of flow.
- Suitable for placing by pump.
- Extremely low permeability.
- High compressive strength at early stages allowing minimal downtime on machinery.

- No requirement for site addition of aggregate.

RELEVANT STANDARDS

BS EN 12390-3
BS EN 196-3

TECHNICAL DATA

Typical test data

Compressive strength

3 Days	50 N/mm ²
7 Days	60 N/mm ²
28 Days	75 N/mm ²

Setting time

Initial set	2 hours @ 25 °C
Final set	2.5 hours @ 25 °C

Shrinkage	<250 microstrain
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APPLICATION

Preparation

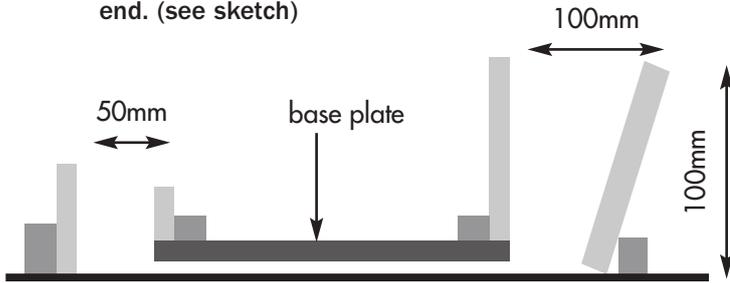
The substrate must be clean and completely free from contaminants including greases, oil and loose material.

To avoid absorption and reduction in flow characteristics, it is essential that the prepared substrate is soaked with clean water for a few hours prior to grouting. Prior to placing the grout any water remaining on the surface should be removed by blowing clean with oil free compressed air.

The underside of the base plate to be grouted should be clean and any oil or grease **MUST** be removed. The underside should preferably have no geometry, which would impede the flow of grout. Should cruciforms be present, it is essential that air release holes are drilled through the base plate to avoid trapping air hence reducing the total contact area.

All formwork should be sealed to prevent loss of grout during pouring. The formwork should be tight

to the base plate and parallel to the direction of flow. A gap of around 100mm is required at the pouring hopper with a gap of around 50mm at the opposite end. (see sketch)



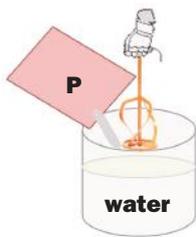
Cross Section of typical grouting formwork

Mixing

SpECgrout C3 is a one-part cementitious grout.

SpECgrout C3 must be mixed using a slow speed electric drill fitted with a suitable mixing paddle (**SpEC Technical Department** can advise). This method is suitable for small quantities and for larger quantities it may be necessary to consider the use of a grout pump. Please contact **SpEC Technical Department** for more advice on the type of pumps available.

Good planning is essential to ensure a continuous flow of grout once pouring commences.



The specified water quantity should be measured in an accurately graduated vessel and added to the mixer. The bagged powder is then added slowly whilst

mixing. A mixing time of not less than five minutes is required to ensure adequate dispersal of the ingredients.

The recommended water used per 25kg bag is 3.3 litres.

The product cannot be mixed by hand

Application

The grout should be poured immediately after mixing and certainly not more than 20 minutes after mixing is complete to take full advantage of the high flow properties.

Again, planning is imperative to ensure that sufficient grout is available to allow continuity of placing.

The mixed product should always be poured from the hopper end of the formwork. On no account should grout be poured from more than one side of the base plate. Maintenance of a fluid head is essential to avoid air entrapment.

Once the grouting has been completed, all exposed areas of grout should be cured immediately using **SpECcure AC** curing membrane.

EQUIPMENT CLEANING

Tools and equipment should be cleaned immediately using water as, on hardening the material can only be removed mechanically.

APPLICATION TEMPERATURE RANGE

Minimum	5 °C
Maximum	35 °C

At temperatures above this range the material should be stored in shade and mixed using chilled water.

PACKAGING AND YIELD

SpECgrout C3 is supplied in 25kg bags. Each bag when mixed with 3.3 litres of water will provide approximately 12.5 litres of mixed material.

STORAGE AND SHELF LIFE

SpECgrout C3 should be stored in dry cool conditions for maximum shelf life.

Under the above conditions the product has a shelf life of 12 months minimum.

HEALTH AND SAFETY

SpECgrout C3 contains alkalis and protection should be provided to prevent contact with skin and eyes. Inhalation of dust must be avoided whilst mixing.

Gloves, goggles and a dust mask must be worn. If skin contact occurs wash with plenty of soap and water. Contact with eyes should be treated by immediately washing with copious amounts of clean water followed by medical assessment.

FLAMMABILITY

SpECgrout C3 is non-flammable.

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