# QUICSEAL 511

## Non-Shrink Grout PG

Positive expansion

Suitable for pumping or pouring over a wide range application

Chloride free composition allows high early strength development -facilitates rapid installation and early operation of plant

Does not contain iron which may cause staining

Green product certified material

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# QUICSEAL 511

## Non-Shrink Grout PG

**DESCRIPTION**

QUICSEAL 511 Grout PG is a cementitious dual shrinkage compensated grout comprising of a blend of graded sand, cement and special chemical additives for all types of grouting needs. The special chemical additives in QUICSEAL 511 minimise the water demand while improving the flowability of the grout, thus producing a flowable non-shrink grout for thickness from 10 to 80mm.

**USES**

QUICSEAL 511 is used for free flowing, precision grouting in the following applications:

- Precast wall panels, beams, columns
- Handrail fixing
- Pressure grouting
- Void filling
- Concrete Repairs

**APPLICATION**

Surface Preparation

All surfaces must be clean and sound and free from all surface laitance, oil and grease. Acid etching or grinding may be used to remove cement laitance. The substrate should be pre-soaked several hours before grouting. Prior to grouting operation, any free water should be removed and particular care must be taken to blow out water in all bolt holes and pockets.

Formwork

The formwork should be constructed to be grout tight and strong. This can be achieved by using foam strips, suitable joint sealant or with QUICSEAL 511 mixed to a stiff consistency. Before erecting, coat the inner surfaces with QUICSEAL 713 Formstrike or other suitable release agent. Generally a gap width between the perimeter formwork and the plate edge should not exceed 150mm on the pouring side and 50mm on the opposite (where the grout emerge) side. It is advisable to have no gap at the remaining sides (flush to the plate edge). Provide a head box of at least 150mm height, along the entire pouring side, to allow for sufficient build up of head when grouting.

**MIXING**

Sufficient labour and materials should be worked out and prepared prior to installation of QUICSEAL 511. Mix QUICSEAL 511 in a mechanically powered grout mixer or by slow speed drill. Place the specified quantity of water in the mixer. Slowly add the contents of QUICSEAL 511 and ensure continuous mixing for at least 5 minutes until a smooth, even consistency is achieved.

Accurate and consistent mixing duration is recommended for each operation to obtain desired results. Note that the amount of water must be predetermined to the particular application prior to mixing to ensure no bleeding. Excessive water may render lower performance of the non-shrink grout. The mixed grout shall be used within 15 minutes of mixing.

Placing

Flowable Consistency

Ensure that the necessary formwork is firmly in place and watertight. Any bolt pockets must be grouted prior to grouting between the substrate and the base plate.

Pour QUICSEAL 511 immediately & continuously after mixing. During the pouring process, ensure that a good hydrostatic head is maintained to keep the flow of the grout continuous and entrapped air & pre-soaking water displaced by the grout is allowed to escape. Use a rod to assist in placement. For larger pours, the grout shall be placed via pumping through hoses.

QUICSEAL 511 may be placed in thickness up to 80mm in one pour when used as a base plate grout. For areas where thickness exceeds 80mm, it is desirable to add cleaned, washed 10mm silt-free aggregates to minimise heat build up. (Aggregates should be in saturated surface dry condition) Continuous grout flow is essential & sufficient grout and material should be available to ensure continuity in the grouting operation.

Plastic Consistency

QUICSEAL 511 must be mixed with correct proportion of water to produce a plastic consistency suitable for dry packing or trowel applications while maintaining the performance of the grout.

**CURING**

On completion of the grouting operation, exposed areas should be thoroughly cured by means of QUICSEAL curing membrane, continuous application of water and/or wet hessian.

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### TECHNICAL DATA

| Characteristics / Test Method | Test Result | |
|---|---|---|
| Compressive Strength ASTM C942 | Flowable | Plastic |
| 1 day | >18 MPa | 40 MPa |
| 3 days | >40 MPa | 50 MPa |
| 7 days | >55 MPa | 60 MPa |
| 28 days | >70 MPa | 75 MPa |
| Setting time ASTM C953 | - | - |
| Initial | ≥ 1 hour | - |
| Final | ≤ 10 hours | - |
| Expansion at 28 days | ≤ 0.4% | - |

### CLEANING

Clean all tools and equipment with water immediately after grouting operation. Hardened mortar can only be mechanically removed.

### PACKAGING

QUICSEAL 511 is supplied in 25 kg bags.

### STORAGE

Store in a sheltered, cool, dry place, protected from rain and sunlight and extreme temperatures. QUICSEAL 511 has a shelf life of 12 months when stored as stated in its original packaging.

### COVERAGE / YIELD

1 bag of 25 kg QUICSEAL 511 will yield different volume of grout when mixed with different amount of water as shown:

### COVERAGE / YIELD

| Consistency | Required Volume of water | Yield |
|---|---|---|
| Trowellable | 3.2 – 3.4 litres | 12 – 12.5 litres |
| Flowable | 4.2 – 4.5 litres | 13 – 13.5 litres |

### HEALTH & SAFETY

QUICSEAL 511 is not hazardous, but it is alkaline in nature. Protective clothing, filter mask and gloves should be worn during the grouting process.

### IMPORTANT NOTES

The information set forth herein is furnished free of charge in good faith and is based on technical data that QUICSEAL considers to be reliable. This information is intended for used by persons having technical skill and at their own discretion and risk. Information contained in this product sheet conforms to the standard detail recommendations and specifications for the installation of QUICSEAL products as of the date of publication of this document. QUICSEAL makes no other warranties and assumes no liability, expressed or implied, as to the architecture, engineering or workmanship of any project. To ensure that you are using the latest, most complete information, please contact ARDEX-QUICSEAL

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