



QUICSEAL 510

Product Name

Non-Shrink Grout



Description

QUICSEAL 510 Grout is supplied as ready to use cementitious non-shrink grout specially formulated to suit various purposes. QUICSEAL 510 is non-metallic and chloride free and is easy to use, requiring addition of water to produce a free flowing non-shrink grout.

Advantages

- Premixed cementitious grout - Economical and easy to use
- Non-corrosive - No corrosion to rebar, staining or deterioration due to rust expansion
- Chloride free composition allows high early strength development without the use of chlorides

Uses

QUICSEAL 510 can be used in plastic or flowable consistency states in the following applications:

- Bedding bearing plates
- Precast applications – bedding precast units such as walls, slabs and refuse chutes and filling of precast joints and gaps.
- Small patch repairs

Application

Surface Preparation

All surfaces must be clean and sound and free from all surface laitance, oil and grease. All defective concrete should be removed till sound concrete is detected.

Saw cut the repair locations to a depth of at least 10 mm to provide a square edge and to avoid feather-edging. Break out the complete repair area to a minimum depth of 10 mm up to the sawn edge.

Expose fully any corroded steel in the repair area and remove all loose scale and corrosion deposits by using hand held grinding tools. Steel should be free from contaminants and any foreign matters that may inhibit adhesion.

The substrate should be dampened with water or primed with QUICSEAL bonding agent or adhesive slurry.

Mixing

Place specified amount of water into a clean container. Slowly add the contents of QUICSEAL 510 (powder) and mix with a slow speed drill fitted with a paddle type mixer blade of approximately 3-5 minutes until a homogeneous and lump-free consistency is obtained.

Placing

For horizontal application, apply well-mixed QUICSEAL 510 to the prepared surface at a thickness of 10mm to 40 mm in one layer. For vertical applications, reduce the ratio of water to drier consistency.

For placement of more than 1 layer, the surface of the intermediate layer should be scratch-keyed prior to application of subsequent layers. Application of the next layer may proceed as soon as the previous layer has fully set. Consistent with cementitious toppings, it is essential to allow QUICSEAL 510 to cure naturally in ambient conditions. Protect QUICSEAL 510 against rapid drying due to strong wind and direct sunlight or high temperature by covering with polythene sheet, wet hessian or QUICSEAL 507 Cure-Shield WB curing compound to reduce premature water loss. Apply curing compound only on finished surface but not on intermediate layers.

Technical Data

Consistency = Flowable (Non-Shrink Grout for Pressure Grouting Grade 40)		
TESTS	RECOMMENDED	
	TEST METHOD	SPECIFICATIONS
Compressive Strength	ASTM C942: 1999	$\geq 55 \text{ N/mm}^2$
Shrinkage	ASTM C940: 1998a	0%
Setting Time	ASTM C953: 1987	Initial setting $\geq 1 \text{ hr}$
	ASTM C953: 1987	Final setting $\leq 10 \text{ hrs}$

Consistency = Semi-Precast (Non-Shrink Grout for Semi-Precast Construction)			
TESTS	HDB'S ACCEPTANCE CRITERIA	RECOMMENDED	
		TEST METHOD	SPECIFICATIONS
Flow Consistency	30-45% Flow	ASTM C1437: 2007	35 - 45%
Compressive Strength	$\geq 40 \text{ N/mm}^2$	ASTM C109/109M: 2008	$\geq 80 \text{ N/mm}^2$
Volume Change	Lower limit = 0.00	ASTM C827: 2001a	Lower limit = 0.00
	Upper limit = +3.00		Upper limit = +3.00
Setting Time	Initial setting $\geq 1 \text{ hr}$	BS EN 196 Part 3: 2005	Initial setting $\geq 1 \text{ hr}$
	Final setting $\leq 4 \text{ hrs}$		Final setting $\leq 4 \text{ hrs}$
Bond Strength at 28 days	$\geq 1.5 \text{ N/mm}^2$	BS EN 12615: 1999	$\geq 1.5 \text{ N/mm}^2$

Packaging

QUICSEAL 510 is supplied in 25kg bags.

Storage

Store in a sheltered, cool, dry place, protected from rain and sunlight and extreme temperatures.

QUICSEAL 510 has a shelf life of 12 months when stored as stated in its original packaging.

Coverage / Yield

Consistency	Required Volume of water	Yield / bag
Flowable	4.3 – 4.5 litres	13.5 litres
Semi-Precast (Trowellable)	3.3 – 3.5 litres	12.0 litres

Health & Safety

QUICSEAL 510 is not hazardous, but it is alkaline in nature. Protective clothing, filter mask and glove should be worn during the handling 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 use 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 QUICSEAL.