



QUICSEAL 515

Polymer modified Structural Repair Mortar

Description

QUICSEAL 515 is high performance shrinkage compensated structural repair mortar consisting of specially selected polymer fibre and additives mixed with a blend of selected cement and well-graded filler.

When mixed, QUICSEAL 515 becomes a highly thixotropic mortar and is easily applied by trowel.

The cured mortar is durable and weather resistant and has excellent adhesion to concrete substrates. Its polymer modification provides good resistant to water and good protection to embedded steel reinforcement.

Uses

- Repairs to precast structures
- Repairs to reinforced concrete structures
- Repairs to bridge decks
- Repairs to marine structures

Advantages

- Good workability
- Water and weather resistant
- Provides good protection to embedded steel reinforcement.
- Excellent bond to the concrete substrate
- Can be applied in 10 – 40mm in one application
- Impermeable to chloride ingress
- Chloride free mortar

Substrate Preparation

The substrate must be clean and sound, free of dust, loose particles. Laitance, oil, grease must be removed from concrete surfaces by scabbling, grit blasting or other means. Defective and unsound substrate has to be removed and repaired prior to application of QUICSEAL 515.

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. Grit-blasting is recommended for this process.

Reinforcing Steel Priming

Apply one full coat QUICSEAL 504 Rust Protector and allow it to dry. Refer to QUICSEAL 504 catalogue for application instruction.

Substrate Priming

The substrate should be dampened with clean water (any excess being removed prior to commencement) prior to applying one coat of QUICSEAL 607 bonding agent. The bonding agent should be applied by brush to the prepared surface by a vigorous stippling action to ensure uniform coverage.

Mixing

Pour 3.2 – 3.4 litres of water into a clean container. Slowly add 20 kg of QUICSEAL 515 and mix with a slow speed mechanical mixer until homogenous and lump free paste is obtained. Allow the mix to stand for 3 minutes and re-stir before use.

Application

Immediately after mixing, apply well-mixed QUICSEAL 515 to the primed surface as soon as the bond coat becomes 'tacky' at thickness of 10mm to 40 mm in one layer in wall and floor application

For placement of more than 1 layer, the surface of the intermediate layer should be scratch-keyed prior to application of subsequent layers.

Curing

Consistent with cementitious toppings, it is essential to allow QUICSEAL 515 to cure naturally in ambient conditions. Where rapid drying conditions exist, such as high temperature, direct sunlight, and strong wind, QUICSEAL 515 should be protected with polythene sheet, wet hessian or QUICSEAL 507 Cure-Shield WB curing compound to reduce premature water loss.

Technical Data

Mix Ratio (liquid : powder)	3.2 – 3.4 : 20kg
Density	1.95 – 2.03kg/L
Pot Life @ 25°C	30 – 45 minutes
Initial Setting Time	< 3 hours
Final Setting Time	< 4 hours
Compressive Strength at 28 days (ASTM C109)	>42MPa
Flexural Strength at 28 days (ASTM C348: 2014)	>6.0 N/mm ²
Slant Shear Bond Strength at 28 days (ASTM C882:2013a)	>7.8 N/mm ²
Yield Per 20kg	11.3 – 11.6L

Packaging

QUICSEAL 515 is available in 20kg paper bag

Storage

12 months if kept in a dry cool place in the original packaging. If stored at high temperatures and/or humidity conditions the shelf life may be reduced.

Health and Safety

QUICSEAL 515 contains cement powders which, during normal use, have no harmful effect on dry skin. However, when QUICSEAL 515 is mixed, or becomes damp, alkali is released which can be harmful to the skin. During use, avoid inhalation of dust and contact with skin and eyes.

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 QUICSEAL.

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