# QUICSEAL 301

## Epoxy Mortar

Two-part high strength epoxy resin mortar for repairs, bedding and fixing

Possess outstanding strength and adhesive strength

Fast cure - by chemical reaction

High compressive and tensile strength

Impermeable to water, oil, petrol, chemical spillage

Excellent chemical resistance

MANAGEMENT SYSTEM CERTIFICATION
DNV
ISO 9001 • ISO 14001

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## Epoxy Mortar

Two-part high strength epoxy resin mortar for repairs, bedding and fixing

### DESCRIPTION

QUICSEAL 301 is a two-component product, premixed with selected graded aggregates / epoxy resins & additives which when mixed, produces a high strength impermeable and chemically resistant mortar. The base / hardener are in different colours to provide visual confirmation of adequate and proper mixing on site.

### TYPICAL USES

QUICSEAL 301 are manufactured for the following applications:-

- Repair of damaged precast concrete building units
- Repair of spalled or honeycombed vertical surfaces and protecting exposed reinforcement
- Repair of cracked concrete piles
- Grouting of tile joints in commercial & hotel, food & hygienic areas, swimming pools, industrial work areas
- Bedding applications – bridge bearing pads and mounting of heavy plant and machinery
- General repair works – bonds different materials
- Underwater applications – replacing slip tiles repairing submerged steel work and concrete where reinforcement has been exposed
- Repair and reinstating structures exposed to heavy battering of the sea, such as seawalls and concrete jetties

### SURFACE PREPARATION

Concrete and Ceramic

As with all concrete repairs, it is essential to remove all grease, oil, dust and other loose materials. Concrete substrates must be adequately prepared either by use of a suitable mechanical method such as scabbling, grit blasting or needle gunning.

Steel

Degrease steelwork if necessary. Remove dust and debris. Ensure surfaces are dry and prime with QUICSEAL EPOXY PRIMER working well into the surfaces. Allow to dry for 30 minutes before firmly applying QUICSEAL 301. A smooth surface may be obtained may be obtained with a damp or heated trowel. QUICSEAL EPOXY PRIMER may be applied to dry or slightly damp, but not wet surfaces. When applying QUICSEAL 301 to damp surfaces, one must work the epoxy mortars thoroughly into the wet surfaces to obtain complete surface adhesion. QUICSEAL 301 should not be applied more than 20 mm thick in one application on vertical surfaces to prevent slumping.

### SITE INSTRUCTIONS

Mechanically clean concrete and steelwork to remove loose, weak and contaminated surfaces and rust, scale, etc. Degrease steelwork if necessary. Remove dust and debris. Ensure surfaces are dry and prime with QUICSEAL EPOXY PRIMER working into surface. Allow to dry for 30 minutes before firmly applying QUICSEAL EPOXY MORTAR. A smooth surface may be obtained with a damp or heated trowel. QUICSEAL EPOXY PRIMER may be applied to dry or slightly damp, but not wet surfaces. QUICSEAL EPOXY MORTAR may be used on wet surfaces but must thoroughly worked into the wet surface to obtain complete surface protection and adhesion.

QUICSEAL EPOXY MORTAR should not be applied more than 20 mm thick in one application on vehicle surfaces, to prevent slumping. In most cases, where concrete surface is rough, no primer is required.

### UNDERWATER APPLICATION – QUICSEAL EPOXY MORTAR

Surfaces must be mechanically cleaned, free of weak or loose material, marine growth, rust, scale, etc. Mixed QUICSEAL 301 should be carried in plastic bags to work area in small quantities, approximately 5 mm thick, pressed into position ensuring that all water is expelled from between the repair surface and the QUICSEAL 301. Mixed mortar should be applied within 30 minutes of mixing. Contact between the mixed mortar and water should be avoided until the point of application. Uncured material should be protected from scouring and displacement by moving water until cured.

### MIXING AND STORAGE

Store the materials away from sunlight or heat before using, as heat will shorten pot-life of materials. Mix materials in the ratio of 3:1 by weight (Part A : Part B) until a homogenous colour is obtained (1 to 3 mins). For large quantities, mechanical mixer should be used, for small quantity, it can be hand mixed.

### PACKING & COVERAGE

Pack Size: 3 kg and 12 kg set

Coverage:

Approximately 1.85 – 1.95kg/$m^2$/mm thickness

Thickness per Application: 1 – 20 mm

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### TECHNICAL DATA

| PROPERTIES | |
|---|---|
| Appearance | (Part A) White Paste<br>(Part B) Soft Black Paste |
| Density | (Part A) 2.20 ± 0.06<br>(Part B) 1.85 ± 0.06 |
| Mix Ratio<br>(Part A : Part B) | 3 : 1 |
| Mixed Colour | Grey |
| Pot Life | 45 ± 5 mins<br>(100g at 25 ± 3$^0$C in paper cup) |
| Compressive Strength at 7 days<br>(ASTM C579: 2001 2012) | ≥ 60 N/mm$^2$ |
| Tensile Strength<br>(ASTM C307: 2003 2012) | >13.8 N/mm$^2$ |
| Water Immersion | May be applied and cured underwater |
| Coverage | 1.85 – 1.95 kg/m$^2$<br>per mm thickness |
| Full Cure | 7 ± 2 days at 25 ± 3$^o$C |

### STORAGE

The shelf life of QUICSEAL 301 is 12 months when stored unopened in a cool and dry place.

### HEALTH & SAFETY

Gloves and goggles should be worn. Any splashes to the skin or eyes should be washed off with clean water. In the event of prolonged irritation, seek medical advice. Powder products should be handled to minimize dust formation. Use a light mask if excessive dusting is unavoidable.

### IMPORTANT NOTES

The information set forth herein is furnished 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, contact ARDEX-QUICSEAL


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