





Vetogrout UR711

Flexible non-foaming polyurethane injection resin.

Uses

- Injection of concrete and masonry cracks to form a flexible seal.
- Used in conjunction with Vetogrout UR710 for crack injection in wet conditions..
- Crack injection in live crack cases.

Product Description

Vetogrout UR711 is a two part solvent-free, low viscosity, polyurethane resin system. When mixed in the proportions supplied reacts to form a tough, slightly flexible resin. Vetogrout UR711 has a good adhesion to concrete and masonry and when injected into cracks it allows some movement without loss of bond.

Used in conjunction with Vetogrout UR710 forms a permanent seal in cracked concrete.

Advantages

- Low viscosity with maximum crack penetration.
- Excellent adhesion to both dry and moist substrates.
- Flexible, allows for movement accommodation in live cracks.
- Withstands high hydrostatic pressure.
- Impermeable.

Standards Compliance

- ➤ ACI 546R: Guide for concrete repair.
- ➤ ICRI Guideline No. 340.1-2006
- ➤ BS 6319

Design Considerations

Vetogrout UR711 is designed to form a permanent flexible seal in cracked concrete and masonry units for widths between 0.2 and 10 mm.

It can also be used to stabilize soil and create membrane barriers behind retaining walls.

Technical Data

| Property | Typical Values | |
|---------------------------------------|-------------------|--|
| Specific Gravity | 1 | |
| Pot Life @ 35°C | 15 - 20 minutes | |
| Reaction Time | 50 minutes @ 35°C | |
| Viscosity | 3 poise @ 20°C | |
| Shrinkage (ASTM D2126) | 0% | |
| Modulus of Elasticity (DIN 53457) | 4 to 4.5 MPa | |
| Adhesion Strength to Concrete | >2 MPa | |
| Elongation at Break (ASTM D638-10) | 60-80% | |

Usage Instructions

Preparation

Clean the surface and remove any dust, unsound or contaminated material, plaster, oil, paint, grease, corrosion deposits or algae.

The surface should preferably be prepared using high pressure water jetting or light abrasive blasting, followed by thorough washing to remove dust and remaining particles.

Dirt alone may be removed with wire brushes or similar mechanical means. Oil and grease deposits should be removed by steam cleaning, detergent scrubbing or the use of a proprietary degreaser. The effectiveness of





decontamination should be assessed by a pull-off test.

Blow the cracks and treated surface with oil free air to ensure complete removal of all dust and loose particles.

Ensure that the surfaces are blown dry.

In the presence of running water the flow must be stopped using Vetogrout UR710 which produces a rapid setting water-stopping foam (see separate data sheet). When the water is stopped the cracks are reinjected with Vetogrout UR711.

All cracks must be sealed and injection packers located in place before Vetogrout UR711 is injected.

Fixing injection packers

The injection packers inserted into pre-drilled holes shall be fixed at intervals along the length of each crack. The distance between each packer will depend upon the width and depth of the crack. Spacing shall be close enough to ensure that the resin will penetrate along the crack to the next point of injection. This will normally be between 200 mm to 500 mm.

The surface of the cracks between the packers shall be sealed with a band of Vetorep ER350, 30 mm to 40 mm wide and 2 mm to 3 mm thick. Both sides of any cracks which go all the way through a wall or slab shall be sealed in this way. In the case of a wall or slab which is cracked all the way through, packers shall be located on both sides with those at the back placed at midway points between those at the front.

The Vetorep ER350 shall be allowed to cure for 8 hours at 35°C. At low ambient temperature (5°C to 12°C) the curing time will be extended and the applicator shall ensure that the surface sealant has adequately cured prior to continuing.

One end of the injection hose shall be attached to the lowest packer on vertical cracks or to either end of horizontal cracks.

Each crack shall be treated in a single, continuous operation.

Sufficient material shall, therefore, be made ready prior to the commencement of the work.

Vetogrout UR711 application

Thoroughly mix the entire hardener and base resin contents until the liquid becomes clear.

Vetogrout UR711 should be used with standard injection equipment having closed containers. The injection pressure should be at least 0.4 N/mm2 (4 bar).

LEGAL DISCLAIMER

Only mix sufficient resin that can be used within the pot life of the material.

Making Good

Remove the packers or nipples. Make good any holes or voids with Vetorep ER350 and allow to cure. The Vetorep ER350 can be ground off or softened with a blow lamp and peeled off. Do not allow to burn.

Cleaning

Vetogrout UR711 and Vetorep ER350 should be removed from tools, equipment and mixers with Vetonit Solvent XX400 immediately after use. Hardened material can only be removed mechanically.

Packaging & Coverage

| Product | Pack Size | Theoretical Yield |
|--------------------------|---------------|---------------------------|
| Vetogrout UR711 | 5 liter Kit | 5 liter yield |
| Vetorep ER350 | 1 & 5 kg Kits | 1.7 kg/m ² /mm |
| Vetonit Solvent XX400 | 4 Liter cans | 4 liter yield |

Shelf Life & Storage

Vetogrout UR711 original sealed containers have a shelf life of 6 months @ 20°C provided it is stored clear of ground in a dry shaded and temperature controlled conditions.

If stored at high temperatures and/or high humidity conditions the shelf life may be reduced to 2 to 3 months.

Health & Safety

Vetogrout UR711 contains Isocyanate. May cause sensitization by inhalation. During use avoid contact with skin and eyes and inhalation of vapor. Wear suitable protective clothing, gloves and eye/face protection. The use of barrier creams provide additional skin protection.

Should accidental skin contact occur, remove immediately with a resin removing cream followed by soap and water. Do not use solvent. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting. Use only in well ventilated areas. In case of insufficient ventilation wear suitable respiratory protective clothing.

Vetogrout UR711 and Vetorep ER350 are not flammable. Vetonit Solvent XX400 is flammable, keep away from sources of ignition and direct flame.

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