

CONCRETE REPAIR



Vetogrout UR711

Polyurethane injection resin (Non-foaming & flexible)

Uses

- To form a flexible seal in concrete and masonry cracks.
- For crack injection in wet conditions (in conjunction with Vetogrout UR710).
- 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, it reacts to form a tough, slightly flexible resin. Vetogrout UR711 has good adhesion to concrete and masonry, and when injected into cracks, it allows some movement without loss of bond.

Vetogrout UR711 is used in conjunction with Vetogrout UR710 to form a permanent seal in cracked concrete.

Advantages

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

Standards Compliance

- ACI 546R: Concrete Repair Guide.
- ICRI Guideline No. 340.1

Design Considerations

Vetogrout UR711 is designed to form a permanently flexible seal in cracked (crack width: 0.2 - 10 mm) concrete and masonry units.

Use Vetogrout UR711 to stabilize soil and create membrane barriers behind retaining walls.

Technical Data

Vetogrout UR711	Typical Values
Specific Gravity	1
Pot Life @ 23°C	2-3 hours
Reaction Time	50 minutes @ 35°C
Viscosity	650 CP @ 23°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.



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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 cracks and treated surfaces 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). Reinject crack with Vetogrout UR711 when water has stopped.

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

Fixing injection packers

Fix the injection packers inserted into pre-drilled holes at intervals along the length of each crack. The distance between each packer will depend upon the width and depth of the crack. Spacing must 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 & 500 mm. Seal the cracks' surface between the packers with a band of Vetorep ER350 (30 mm - 40 mm wide. And 2 mm - 3 mm thick). Seal both sides of all cracks that penetrate through a wall or a slab.

In the case of a wall or slab which is cracked all the way through, packers must be located on both sides, those at the back should be placed midway between those at the front.

Allow the Vetorep ER350 to cure for 8 hours at 35°C. At low ambient temperature (5°C to 12°C), extend the curing time. Make sure that the surface sealant has adequately cured before continuing.

Attach one end of the injection hose to the lowest packer on vertical cracks or attach it to either end of horizontal cracks. Treat each crack in a single, continuous operation. Prepare sufficient material before you begin.

Application

Mix the entire hardener and base resin contents thoroughly until the liquid becomes clear. Use Vetogrout UR711 with standard injection equipment (with closed containers). The injection pressure should be at least 0.4 N/mm2 (4 bar).

Mix resin accurately so you can use it all 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 them to cure.

The Vetorep ER350 can be ground off or softened with a blowlamp and peeled off. Do not allow to burn.

Cleaning

Remove Vetogrout UR711 and Vetorep ER350 from tools, equipment, and mixers with Vetonit Solvent XX400 immediately after use. Remove hardened material mechanically.

Packaging & Coverage

Product	Pack Size	Consumption
Vetogrout UR711	4 & 10 liter kit	1 Liter = 1 m² @ 1 mm thickness, or
		5 liters = 5 m² @ 1 mm thickness.
Vetorep ER350	5 kg Kit	3 m ² @1mm Thickness

Stated consumption data are for general guidance. Actual consumption depends on the nature of substrate, method of application, and wastage.

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 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, which may cause sensitization if inhaled.

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 provides additional skin protection. Should accidental skin contact occur, remove immediately with a resin-removing cream followed by soap and water. Do not use solvent on your skin.

In case of contact with your 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. However, Vetonit Solvent XX400 is; keep away from sources of ignition and direct flames.

Additional Information

Saveto manufactures a wide range of construction chemicals and specialty products for various applications.

For further information on these products and systems kindly check our website or contact your local Saveto representative.

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