

VICACRYL-307®

Elastic Methacrylic Injection Resin for Permanent Waterproofing

Description

VICACRYL 307 is a water-expanding hydrogel based on acrylate and methacrylate basis that hardens in micro fine crack and water seepage channels to a rubber-like, flexible product.

VICACRYL 307 is a very low viscosity, elastic, polyacrylic injection resin with a different and adjustable reaction time

VICACRYL 307 is three components;

- Component AI (Resin): Blue Liquid
- Component AII (Accelerator): Yellow liquid
- Component B (Hardener): White Powder

Advantages

- Very low viscosity almost like water.
- Elastic material after final curing which acting effectively in sealing construction joints.
- Adjustable pot off time (gel time) between 4 and 45 minutes.
- Solvent free acrylic resin.
- Acrylamide free.
- Cured product has good chemical resistance properties.
- Safe to use in drinking water tanks.
- Environmentally friendly, can be used in ground water protection zone.

Uses

- **VICACRYL 307** can be used for the injection of compartment system and reinjection hoses to seal construction joints.
- **VICACRYL 307** can be used to seal concrete cracks and voids.
- **VICACRYL 307** can be used for making new sealing walls curtains injection.
- **VICACRYL 307** can be used for soil stabilization.
- **VICACRYL 307** can be also used in tunnel constructions and sealing of TBM.
- **VICACRYL 307** can also be used for the repair by injection of damaged waterproofing membranes.

Technical characteristics

Fresh properties

Consistency & Colour	Component AI (Resin): Blue Liquid Component AII (Accelerator): Yellow liquid Component B (Hardener): White Powder
Spec. density (20°C)	Component AI (Resin): ~ 1.05 kg/l Component AII (Accelerator): ~ 1.10 kg/l Component B (Hardener): ~ 1.07 kg/l (after diss. in water)
Dyn. viscosity (20°C)	Of mixture: ~ 5-10 mPa·s

Properties after curing

Consistency	Rubber-like
Colour	Greenish white
E-modulus	approx. 0.13 MPa
Tensile strength	approx. 0.08 MPa
Elongation at break	approx. 290 %
Water absorption	approx. 30 %

Packaging

One **VICACRYL-307** kit weighs **21.65 kg** composed of the following:

- Component A1 20 kg plastic canister
- Component AII 1.25 kg plastic bottle
- Component B 400 gm plastic bag

Application Instructions

Component Preparation:

- **Preparation of Part A:** Add Component AII (1.25 kg bottle) into Component A1 (20 kg canister). Shake and mix thoroughly to ensure homogenous activation. Once activated, Part A remains usable for up to 12 hours at 20°C. Protect activated Part A from direct sunlight.
- **Preparation of Part B:** Dissolve Component B (400 gm powder) into 20 liters of clean tap water. Mix thoroughly until Component B is completely dissolved. Part B remains stable for approx. 5 hours (depending on temperature).
- **Application / Injection:** Part A and Part B prepared as above are processed at a 1:1 volumetric ratio using a dedicated two-component (2K) acrylic injection pump equipped with a static mixer. In case of using a single component injection pump, the applicator shall increase the pot lifetime by decreasing the amount of Component B.

Injection Procedure — General Guidance

- Identify the crack, joint or seepage path and determine the appropriate injection points.
- Drill and install suitable injection packers in accordance with the crack geometry and site conditions.
- Prepare Part A and Part B as specified above and load the two-component injection pump.
- Inject through the packers using controlled pressure appropriate to the substrate and structural condition.
- Continue injection until the resin has adequately penetrated the discontinuity or reaches the intended adjacent injection point.
- Monitor material take, leakage reduction and reaction behavior during injection.
- After curing, remove packers where required and make good the surface using a compatible repair material.
- This is a general technical sequence, not a structural repair design. Injection pressure, packer spacing, drilling angle, resin quantity and acceptance criteria must be established by the responsible applicator / engineer based on the actual structure and leakage condition.

Storage & shelf life

- **VICACRYL-307** shall be stored in dry conditions between 15-25°C, protected from heat, frost and direct sunlight.
- Shelf life 12 months from date of production in original packaging when stored according to the above recommendations.
- **After the expiration the use of the product is generally not recommended, unless an approval has been provided by HEMTS. This approval can only be obtained by the quality assurance department of HEMTS releasing the material after verification of main properties being within specification**

Health & safety

Safety Information: Wear proper personal protective equipment (gloves, safety glasses, protective clothing) during handling and mixing. Refer to the official **VICACRYL-307** Safety Data Sheet (SDS) for detailed health and safety guidelines

Disposal

Fully cured **VICACRYL-307** residues are non-toxic and can be disposed of with regular domestic or industrial waste according to local regulations. Uncured liquid chemical components must be disposed of as special chemical waste in compliance with national and local environmental standards.

Technical support

For any technical support, please consult our technical office or representatives.

Disclaimer...The information contained herein is included for illustrative purpose only and, to the best of our knowledge, is accurate and reliable. Hemts cannot however under any circumstances make any guarantee of results or assume any obligation or liability in connection with the use of this information. As Hemts has no control over the use to which may put its products, it is recommended that the products be tested to determine if suitable for a specific application and/or our information is valid in a particular circumstance. Responsibility remains with the architect or engineer, contractor and owner for the design, application and proper installation of each product. Specifier and user shall determine suitability of products for specific application and assume all responsibilities in connection therewith.

Hemts Construction Chemicals Ltd.

Head quarter: 35 ElGazayer St. 11435 Maadi, Cairo, Egypt
Factory: CPC industrial compound, 6th of October, Giza, Egypt
Tel: (+202)27030503 - 27542745 - 25180578 info@hemts.net

www.hemts.net

