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Systems



Certified Quality System since **FEBRUARY 1993**

**From Project to Jobsite**

## TECNO-INJECT ACRYL-FLEX

**TWO - COMPONENT ACRYLIC BASED RESIN PARTICULARLY DEVELOPED FOR WATERPROOFING INJECTIONS INTO CRACKS, PORES, CAPILLARIES, VOIDS**

CE approved **EN 1504-5 "Products and Systems for Reinforced Concrete Injection" table ZA.1c "Concrete Injection for Expansive Filling"**

**Description** TECNO-INJECT ACRYL-FLEX is an acrylic based hydrophilic resin, consisting of 2 components: a resin and a catalyst which are pumped with a twin piston pump at a 1/1 ratio. Once polymerised, TECNO-INJECT ACRYL-FLEX forms a resilient, highly elastic gel. Due to its exceptionally low viscosity and low surface tension, TECNO-INJECT ACRYL-FLEX exhibits better penetration into cracks than water.

- Advantages and Characteristics**
- Large post-expansion in contact with water: approx. 150%.
  - Non-corrosive and non-toxic.
  - Excellent adhesion to concrete.
  - Has a very good chemical resistance to most acids, alkalis and microorganisms.
  - Poly-acrylate resin, free of acryl-amides
  - The exceptionally low viscosity-TECNO-INJECT ACRYL-FLEX penetrates into cracks 0,1 mm wide.
- Fields of use**
- Product particularly formulated for the waterproofing injection in the elements for crack positioning **Igrotac® ISOTANK EC\*** and channels for concrete construction joints **Igrotac® ISOTANK CH\*\***.
  - For repairing water leaks in structures under permanent water pressure.
  - Preventative waterproofing of structures under permanent water pressure.
  - Water control during tunnelling operations.
  - Curtain grouting.
  - Waterproofing of underground structures in concrete or masonry (cellars, underground car parks, ).
  - Sealing of cracks in concrete and rock formations.
  - Waterproofing of tunnel liners.

*NOTE\** : Italian patent pending n. MI2012A000469

*NOTE\*\** : Italian patent pending n. MI2012A000470

**Method of use** TECNO-INJECT ACRYL-FLEX is developed to be used below ground or in conditions of permanent moisture. TECNO-INJECT ACRYL-FLEX is typically injected into defective areas. Holes are drilled in the affected area at a 45° angle. Water can be forced into the hole to determine whether all cracks can be injected and if additional holes need to be drilled. Visible surface leaks should be sealed with fast setting cement such as TECNOSTOP. Allow the cement to harden completely before injecting TECNO-INJECT ACRYL-FLEX. Use standard packers or equipment according to local regulations. TECNO-INJECT ACRYL-FLEX IS then injected with a high pressure pump capable of 200 bars. When surface leaks show up during pumping, stop immediately and seal the leak by approved method

### **Composition**

The injection grout needs to be prepared immediately before the injection. Do not dilute the resin to less than 20% solids when injecting.

COMPONENT A : TECNO-INJECT ACRYL-FLEX + TECNO-INJECT ACRYL CAT300

COMPONENT B : water + TECNO-INJECT ACRYL INI200

After preparation the components are injected via the pump in 1/1 ratio.



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### Method of use **Preparation:**

#### **Component 1**

• TECNO-INJECT ACRYL-FLEX container. Add the required quantity of catalyst TECNO-INJECT ACRYL CAT300 to the TECNO-INJECT ACRYL-FLEX resin. Mix thoroughly.

#### **Component 2**

• Initiator tank. The tank is first filled with the required quantity of water as the TECNO-INJECT ACRYL-FLEX tank after which the initiator is added. The mixture is thoroughly mixed.

Typically a 2% accelerator is used. At temperatures below 15°C or in case of high water ingress, use 3-4% accelerator. This will give a normal gel time of 4-5 minutes, which is appropriate for waterproofing active leaks.

T (°C)	Resin (l)	Catalyst(l)	Water(l)	Initiator(l)	Containers	Gel time (minutes)
5	42,00	1,90	42,00	2,25	5	1
5	42,00	1,90	42,00	1,35	3	2
5	42,00	1,90	42,00	0,90	2	3
10	42,00	1,30	42,00	1,80	4	1
10	42,00	1,30	42,00	0,90	2	2
10	42,00	1,30	42,00	0,45	1	3
15	42,00	1,10	42,00	1,35	3	1
15	42,00	1,10	42,00	0,90	2	2
15	42,00	1,80	42,00	0,45	1	3
20	42,00	0,80	42,00	1,35	3	1
20	42,00	0,80	42,00	0,90	2	2
20	42,00	0,80	42,00	0,45	1	3

#### Injection :

The injection work should be carried out with a twin piston, 1:1 ratio high pressure pump. Delayed gelling times can be obtained by adding a retarding agent. Contact the Technical Department UAPP.

**Storage** Products should be stored in a frost- free environment under cover, clear of the ground, in the original closed packaging. Storage temperature must be below 35°C. Shelflife: 1 year.

**Health and safety** TECNO-INJECT ACRYL-FLEX is classified as irritating. Always wear appropriate protective gear: rubber gloves, goggles and boots. In case of contact with the eyes, flush with water for 15 minutes. If swallowed, call a physician immediately. For full information, consult the relevant Material Safety Data Sheet.

**Packaging** TECNO-INJECT ACRYL-FLEX: 25 kg plastic pail  
TECNO-INJECT ACRYL CAT 300 : 25 kg plastic pail  
TECNO-INJECT ACRYL INI200 : 0,45 kg bottle



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<b>Technical characteristics (typical values)</b>	<b>TECNO-INJECT ACRYL-FLEX</b>		
Density	ASTM D1638		1.17 Kg/l
Solid content	ASTM D1010		45 %
Solid content in catalyst			85%
Viscosity	ASTM D1638		15-20 mPa.S
<b>Cured resin at 22% solids mixture</b>			
Elongation at break	ASTM 638		300%
Expansion in contact with water			approx. 150 %

**Safety indications** Read carefully the safety indications on the packaging, or consult the relevant Material Safety Datasheet of this product.

The above information is based on our best experiences and lab results and on results of the application of the product in various fields. Tecnochem Italiana is not responsible for negative performances due to not proper use of the product or for defects due to elements not connected with the quality of the product included wrong storage. Technical characteristic in this technical data sheet are up-to-dated periodically .Revision date of this technical data sheet is indicated below. Changes of this data sheet can be found in our web-site [www.tecnochem.it](http://www.tecnochem.it) where you can find the same technical data sheet updated in real time.

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