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TECHNO-Injection 303

Low viscosity, fast-reacting injection acrylic resin for sealing and soil consolidation works in presence of water.

Description

TECHNO-Injection 303 acrylic resin is a highly reactive two-component acrylic sealing resin with a low viscosity for good penetration. The product cures quickly, forming a highly flexible hydrogel with excellent swelling/re-swelling properties. Because of its flexibility. **TECHNO-Injection 303** has an excellent performance in soil stabilization in presence of water because it has a capability to adsorb 100% water by volume.

TECHNO-Injection 303 product retains its excellent swelling property in the presence of water, even after dry periods. During reaction and in cured state **TECHNO-Injection 303** emits no toxic substances into the groundwater.

Features

- It has a capability of water absorption of 100% of its initial volume.
- It's became an elastic upon exposure to moisture after dry periods.
- Excellent water absorption properties, so it's an excellent solution for soil consolidation in presence of water.
- Resistant to acidic and alkaline solutions, as well as many other solvents
- Very low viscosity (close to that of water)
- Controllable gel time (between 10 seconds and 40 minutes at 20 °C.
- Harmless when in contact with groundwater, with no emission of dangerous substances
- Can accommodate structural and ground movements.
- Very low viscosity helps in deep penetration of the product into very fine cracks.
- Self-heals even after dry periods and environmentally preferable.

Applications

- Soil stabilization in dry and wet conditions (working very well in presence of water)

- Curtain waterproofing injection
- Permanent water sealing of tunnel and shaft concrete linings and masonry.
- Injection into damp areas or areas with standing water
- Stopping of running water seepage through cracks

Technical Data

<table>
<tr><th colspan="2"></th><th>Appearance</th><th>Viscosity</th><th>Standard Method</th><th>Density</th><th>Standard Method</th></tr>
<tr><td colspan="2">TECHNO-Injection 303 AI</td><td>Clear liquid</td><td>20 mPa・s</td><td>EOS696/2021</td><td>1.13 kg/L</td><td>EOS4-5227/2015</td></tr>
<tr><td colspan="2">TECHNO-Injection 303 AII</td><td>Light yellow liquid</td><td>180 mPa・s</td><td>EOS696/2021</td><td>1.12 kg/L</td><td>EOS4-5227/2015</td></tr>
<tr><td colspan="2">TECHNO-Injection 303 BII</td><td>White solid</td><td>N.A</td><td></td><td>2.5 kg/L</td><td></td></tr>
<tr><th colspan="7">Mixed material (mixing ratio A : B (1 : 1)</th></tr>
<tr><th colspan="2">Curing Time</th><th>Appearance</th><th colspan="2">Viscosity of Mixture</th><th colspan="2">Standard Method</th></tr>
<tr><td colspan="2">Pot lifetime; 10 sec to 7 mins</td><td rowspan="2">Purple</td><td colspan="2" rowspan="2">3 mPa・s</td><td colspan="2" rowspan="2">EOS8497/2021</td></tr>
<tr><td colspan="2">Final Curing 2 min to 20 mins</td></tr>
<tr><td></td><th colspan="6">Final properties</th></tr>
<tr><th>Color</th><th>Watertight</th><th>Appearance</th><th colspan="2">Elongation at break</th><th colspan="2">Water absorption</th></tr>
<tr><td>Blue / Purple</td><td>Up to 2 bars</td><td>Soft elastic</td><td colspan="2">N.A</td><td colspan="2">100%</td></tr>
</table>

*Note gel time can be longer by using TECHNO-Injection 303 Retarder, it is highly recommended to use the retarder in case of soil injection

Processing

Add the AII component to AI component (1kg of AII to 20 kg of AI), shake properly the mixture of AI and AII, the obtained mixture called Part A.

Add the BII component to water (1 kg of BII to 20 kg of tap water), shake properly the mixture of BII with water, the obtained mixture called Part B.In case of soil injection and ground consolidation it is recommended use of TECHNO-Injection 303 Retarder to have longer gel time.

The A and B parts prepared in this way are ready for use and are processed 1:1 (parts by volume) by means of a 2 components injection pump.

The AI component activated with AII can be used for approx. 12 hours (depending on temperature). Do not expose the activated AI component to the sun

Packing

Component AI (Resin)	20 kg plastic canister
Component AII. (Accelerator)	1 kg plastic bottle
Component BII (Hardener)	1 kg plastic bag
TECHNO-Injection 303 Retarder	1 kg plastic bottle

Bigger packaging on request.

Storage

Shelf life at least 12 months in original packaging when stored in dry conditions between 15-25°C, protected from heat, frost and direct sunlight.

After the expiration, the use of the product is generally not recommended, unless TECHNOSEAL has provided an approval. The quality assurance department of TECHNOSEAL can only obtain this approval releasing the material after verification of main properties being within specification

Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to Safety Data Sheet (SDS).

Disposal

Small quantities of cured product residues can be disposed of as normal domestic waste. Dispose of not cured product components must be affected in accordance with the corresponding local regulations. For further information, please refer to the Material Safety Data Sheet (MSDS).

Legal Notes

The information and the recommendations relating to the application are given in good faith based on TECHNOSEAL knowledge and experience of the products when properly stored, handled, and applied under normal conditions in accordance with TECHNOSEAL's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. TECHNOSEAL reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the Product Data Sheet