



# STOPWATER 100

## ***ONE-COMPONENT POLYURETHANE INJECTION RESIN FOR STOPPING WATER LEAKS AND SOIL CONSOLIDATION***

### **DESCRIPTION**

Stopwater 100 is one-component, polyurethane-based injection resin which reacts quickly with water to produce a semi rigid waterproofing foam which expands up to 30 times its initial volume. It does not need any catalyst and is supplied as a single component resin.

Stopwater 100 is a water reactive, non hydrophilic but hydrophobic resin.

### **APPLICATION FIELDS**

- Water cut-off, sealing and filling of cracks and fissures into wet substrates or subjected to high hydrostatic pressure conditions with running water leaks for:
  - Damaged, cracked or honey combed concrete.
  - Stone or brick masonry.
  - Below grade structures: tunnels, galleries, basements, retaining walls, foundations, etc.
  - Pipe network and retaining structures of drinking water: dams, water tanks, channels, swimming pools, reservoirs, etc.
  - Sewer system: sewers, manholes, utility boxes, waste water tanks, etc.
- Sealing and filling of construction or expansion joints in concrete structures.
- Plugging of running water leaks.
- Filling of large cavernous spaces, voids and cracks in stone substrates or concrete structures.
- Consolidation and stabilization of soils.

### **ADVANTAGES**

- Easy to use: No on-site mixing is necessary therefore making it very convenient to work with.
- Excellent performance in high water leak areas with a quick reaction time.
- The material has a long pot-life so it doesn't damage the machine and does not require regular cleaning.
- Hydrophobic system: reacts with the flowing water or humidity present in the substrate. No water injection is required.
- The foam's contraction rate after hardening is the lowest in the industry.
- Low viscosity: ensures good and deep penetration into the substrate during the injection process.
- High expanding ratio: up to 30 times its original volume.
- High dimensional stability once cured. Does not shrink or swell in dry/wet cycles.
- By using a small amount of distinctive additive that was invented by our research team, the hardened foam won't decompose in water.
- High chemical stability with long lasting and high mechanical strengths.
- Withstands high hydrostatic pressure.

### **APPLICATION INSTRUCTIONS**

For additional information, consult the Technical Dossier.

### **APPLICATION**

Resin injection: use a one-component injection pump. Hydrophobic resins, such as Stopwater 100 do not need large amounts of water for the reaction to take place, unlike hydrophilic materials, so a simultaneous injection of water is not necessary. Only if the area of application seems to be dry, the pre-injection of water may be recommended.

It is essential to keep the equipment absolutely dry. Prevent any moisture from coming into contact with the mixture in order to avoid a premature reaction of the product. If the reaction of the batch occurs while pumping, the injection machine must



# STOPWATER 100

be immediately shut down and flushed with solvent in order to avoid the machine from clogging.

The basic steps for injection are as follows:

1. Clean the substrate or concrete surface along the joint, crack or fissure.
2. Plan a pattern of the injection points and then, drill holes.
3. Clear the injection holes
4. Set the injection packers.
5. Clear and seal the joints or cracks with a fast-set repair mortar
6. Inject the polyurethane-based resin Stopwater 100.
7. Clean the surface, tools, mixing equipment and injection equipment of resin.

## APPLICATION CONDITIONS:

Both temperature and humidity of the environment must be observed because they will determine the pot life of the material. The higher temperature and relative humidity, the shorter the induction time will be.

## CLEANING AND MAINTENANCE OF EQUIPMENT

Mixing equipment and injection pumps are to be cleaned with a suitable solvent immediately after use or if works are interrupted for a long period. Once the product cures it can only be removed by mechanical means. Circulate the cleaner through the pump for several minutes. It is recommended to circulate mineral oil after the cleaner in order to displace the solvent.

## CONSUMPTION

Consumption varies according with the use. A preliminary test on-site will determine the coverage exactly.

## IMPORTANT INDICATIONS

- Try to inject the resin when cracks and fissures are in the maximum width of their movement cycle.
- Observe the safety precautions of the product and the injection equipment during both the handling and the resin injection process.

Avoid premature contact of resin with water in order to avoid any reaction before injection. For further information and other uses not specified in this Technical Bulletin consult our Technical Department.

## PACKAGING

Stopwater 100 is supplied in 10 kg & 200 Kg drums.

## ACCESSORIES

Injection equipment consisting of electric pumps and injection packers are available.

## STORAGE

Six months to One year in its original unopened containers in a dry and covered place, protected from humidity, direct sunlight and frost, at temperatures between 5 °C to 35 °C.

## SAFETY AND HEALTH

During mixing and injection do not work without protection of safety rubber gloves, safety clothing, safety goggles and full face shields permanently. Spills and blow outs may happen due to the pump pressure. In case of skin contact, wash with abundant water and soap. If one of the components or mixture comes in contact with the eyes, rinse immediately with clean water but do not rub. If irritation persists, seek medical assistance. If ingested, seek immediate medical assistance. Do not induce vomiting. Provide suitable ventilation in the working area. Observe the usual precautions necessary for the use and applications of this type of products.

For further information, Safety Data Sheet for Stopwater 100 is available by request.

Disposal of the product and its empty packaging must be made by the final user and according to official regulations.



| <b>Product Characteristics</b>                              |   |
|---|---|
| Colour and appearance resin                                 | Brown liquid  |
| <b>Characteristics of components</b>                        |   |
| Solids content, DIN 53189 (%)                               | > 97 ± 3  |
| Density resin at 20 °C, DIN 53 217/1-2 (g/cm <sup>3</sup> ) | 1,15 ± 0,1  |
| Flash point resin   | > 180   |
| <b>Application and curing conditions*</b>                   |   |
| Induction time at 5 °C / 20 °C / 30 °C                      | 50 sec / 30 sec / 15 sec  |
| Time for total reaction at 5 °C / 20 °C / 30 °C             | 5 min / 4 min / 3 min   |
| <b>Cured product characteristics*</b>                       |   |
| Expansion ratio from initial volume                         | 3,000 %   |
| Solubility in water   | None  |
| Shrinkage   | None  |
| Toxicity  | Non-toxic cured foam  |
| Chemical resistance   | Resistant to most diluted acids and alkalis, ground salts and micro organisms |

## GUARANTEE

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