SmartPU Grout
Polyurethane Foam Grout

**SmartPU Grout** is a hydrophobic grout based on polyurethane, which react with water to form closed cell polyurethane foam specially formulated for building waterproofing purposes. **SmartPU Grout** contains no solvent and as such is non-flammable and easily applied.

The reaction of **SmartPU Grout** with water can be accelerated by the addition of **SmartSet PU**. The result is the fast formation of a strong semi-rigid foam that provides a quick and permanent barrier to the ingress of water.

**FIELDS OF APPLICATION**
- Basement and retaining wall
- Concrete slab
- Brick wall
- Water and sewerage structure
- Underground tunnel
- Movement joint
- Wet area, pipe intrusions and manholes

**SURFACE PREPARATION**
- Clean the surface and ensure it is free from any mineral deposits left from long-term water leakage.
- Drill holes at 100 - 300 mm intervals along the side of the leaking crack. The distance between holes will depend upon the width of the gap to be injected. The depth of the drill hole intersecting the crack should be somewhere close to the center of structure if possible.
- Place packers in the previously drilled hole, so that the top of the rubber sleeve is below the concrete surface. If the packer cannot be pushed into the hole, tap it in. Tighten the packer with a wrench as tight as necessary.
- In some circumstances, it can be very useful to flush the crack with water to improve the subsequent penetration of **SmartPU Grout** into thicker concrete.

**BENEFITS**
- Negative side application possible
- Deep penetration into very small cracks
- Foam increase in volume to fill cavities and voids
- Excellent bond strength to wet surfaces
- Flexible and durable after curing, good elastic strength, no shrinkage and allow considerable movement
- Non-hazardous and is resistant to biochemical attacks
- Non-toxic and non-corrosive

**TECHNICAL DATA (under laboratory conditions)**

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TYPICAL RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum expansion (%)</td>
<td>3000</td>
</tr>
<tr>
<td>Induction time at 20°C</td>
<td>30 seconds</td>
</tr>
<tr>
<td>Elongation at break (%) (ASTM D412-98)</td>
<td>&gt; 20</td>
</tr>
<tr>
<td>Gel time at 20°C</td>
<td>40 seconds</td>
</tr>
<tr>
<td>Unconfined compressive strength (Sand Filled)</td>
<td>13.5 N/mm²</td>
</tr>
</tbody>
</table>

**DISCLAIMER**
All information was prepared carefully, using current references available to us. Information provided is to the best of our knowledge and belief, accurate and reliable as of the date indicated. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user’s responsibility to satisfy himself/herself as to the suitability and completeness of information provided here for their intended use. We do not accept liability for any loss or damage that may occur from the use of this information.
MIXING

- Pour SmartPU Grout into a dry bucket. Add in the accelerator SmartSet PU at the average recommended dosage of 5%. An increased dosage is necessary if the foam is required to set quickly.
- Using SmartPU Grout & SmartSet PU best stops active water flow at high rate. Commence injection using either manual foam grout pump or electrical grout pump to ensure that the crack is filled. The material must be seen to be at the initial set stage.
- Always return to previously injected packer and re-inject to ensure that the material is completely compacted.
- Start grouting from the bottom to the top in the case of vertical cracks and from either side in the case of the horizontal cracks.
- Good installation procedures with machine may prevent it from clogging.
- Allow the grout to cure for 1 hour before removing all packers and exposed solidified grout and then patch all holes with SmartPlug.
- Once the injection works is completed, a good and thorough clean up is essential. It is recommended to flush the machine with non-flammable solvent.

PRECAUTIONS

- Avoid eye and skin contact as the product is alkaline.
- Gloves, goggles and dust mask should be worn.
- Wash thoroughly after handling.
- In case eye contact, flush with plenty of clean water. Seek medical help immediately.

PACKAGING & STORAGE

SmartPU Grout is supplied in 20 litre pails and SmartSet PU is supplied in 1 litre pails. Both have a shelf life of 12 months if stored in a cool and dry place with sheltered protection from rain and sunlight.

Partly used drums should be tightly sealed to prevent ingress of moisture. For better life span, partially used pails should be topped off with nitrogen and sealed tightly to prevent moisture contamination.

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