Dr. Fixit PU Sealant

POLYURETHANE JOINT SEALANT

Description

Dr. Fixit PU Sealant is a one-part polyurethane joint sealant suitable for horizontal and vertical use. Dr. Fixit PU Sealant meets the requirement of ASTM C920 and ISO classification F25LM.

Typical Application

- Movement joints in precast concrete construction.
- Balcony parapets.
- Retaining walls.
- Bridge culverts.
- Floor joints.
- General caulking to windows, door frames & skirting etc.

Features

- Ready to use single component product.
- Forms a permanent, tough, elastic rubber seal.
- Excellent adhesion to concrete, brickwork, painted wood, glass, glazed surfaces, aluminum, stainless steel, steeland plastics.
- Non-sag.
- No staining of cementitious substrates.
- Accommodates continuous and pronounced cyclic movement.

Packaging

600 ml sausage, 20 per box

Joint Design

- The joint width must be designed to suit the movement capacity of the sealant. All joints must be properly designed and dimensioned by the specifier and the main contractor in accordance with the relevant standards. The basis of the calculation for the necessary joint width are the technical values of the joint sealant and the adjacent building materials, the environmental exposure of the building, its method of construction and its dimensions. In general, when wider than 10mm the width to depth ratio of 2:1 must be maintained.

Standard design dimensions for concrete elements as per DIN 18 540

<table>
<thead>
<tr>
<th>Joint distance</th>
<th>2 m</th>
<th>2-3.5 m</th>
<th>3.5-5m</th>
<th>5-6.5m</th>
<th>6.5-8m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design joint width</td>
<td>15 mm</td>
<td>20 mm</td>
<td>25 mm</td>
<td>30 mm</td>
<td>35 mm</td>
</tr>
<tr>
<td>Min. joint width</td>
<td>10 mm</td>
<td>15 mm</td>
<td>20 mm</td>
<td>25 mm</td>
<td>30 mm</td>
</tr>
<tr>
<td>Joint depth</td>
<td>8 mm</td>
<td>10 mm</td>
<td>12 mm</td>
<td>15 mm</td>
<td>15 mm</td>
</tr>
</tbody>
</table>

Minimum joint width for perimeter joints around windows: 10 mm

Method of Application

1 SURFACE PREPARATION
- The joint surface should be sound, thoroughly clean, dry and free from grease, oil or any other contamination. All dust and debris must be removed by wire brushing, grinding and vacuuming. Damaged joints should be repaired using a suitable mortar from the Pidilite range.
- Ensure that the filler material such as a closed cell polyethylene sheet or rod is tightly packed and no gaps or voids are evident at the base of the joint. Where backing rod is not fitted a bond breaker tape must be used.
- Fix masking tape on both sides of joint surface to provide a neat appearance and ensure the tape is removed immediately after tooling.
2 APPLICATION

- Insert the sealant sausage into a hand operated application gun and apply nominal pressure over the trigger of the gun so that sealant starts extruding out of the nozzle and apply the sealant into the joint. Apply a slight excess for tooling and finishing purpose.

3 FINISHING

- Tool the sealant immediately with a tooling knife by pressing against the joint to remove air pockets and to ensure 100% contact and adhesion with the joint arris.

4 CLEANING

- After sealing the joint, tools and equipment should be cleaned immediately with any Dr. Fixit Resin Cleaner.

5 PAINTING

- Dr. Fixit PU Sealant can be over coated with most paints, however non flexible coatings may crack. We recommend a trial application. Best results are obtained if the sealant is allowed to cure fully prior to painting.

Note:

- Do not expose the sealant to high temperatures during application.
- Do not use in direct contact with materials containing pitch or bitumen (avoid use of bitumen products as backing board).
- Avoid application directly onto damp substrates.
- High temperature and excessive humidity may cause bubbles to form in the surface of the sealant. Avoid application during the hottest part of the day or in full sunshine.

Technical information

<table>
<thead>
<tr>
<th>PROPERTIES</th>
<th>SPECIFICATION</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum/Maximum joint width</td>
<td></td>
<td>10 mm/35 mm</td>
</tr>
<tr>
<td>Colour</td>
<td>Grey/White/Beige</td>
<td></td>
</tr>
<tr>
<td>Density (g/cc)</td>
<td></td>
<td>1.25 +/- 3</td>
</tr>
<tr>
<td>Skinning time, minutes</td>
<td></td>
<td>40 – 45 mins</td>
</tr>
<tr>
<td>Services temperature range</td>
<td></td>
<td>-40°C to +70°C</td>
</tr>
<tr>
<td>Tear strength</td>
<td></td>
<td>6N/mm (+23°C/50% RH)</td>
</tr>
<tr>
<td>Hardness, Shore A</td>
<td>ASTM C-920</td>
<td>30 (+23°C/50% RH)</td>
</tr>
<tr>
<td>Staining</td>
<td>ASTM C-920</td>
<td>No staining</td>
</tr>
<tr>
<td>E=modulas</td>
<td></td>
<td>0.4 N/mm² @100% elongation (23°C/50% RH)</td>
</tr>
<tr>
<td>Movement accommodation factor</td>
<td></td>
<td>+/-25%</td>
</tr>
<tr>
<td>Elongation at break</td>
<td>DIN 53504</td>
<td>500% (+23°C/50% RH)</td>
</tr>
<tr>
<td>Cure rate</td>
<td></td>
<td>2 mm per day</td>
</tr>
</tbody>
</table>

Coverage

Sealant requirement (in ml) = Length (in cm) x Width (in cm) x Depth (in cm).

Approximate consumption

<table>
<thead>
<tr>
<th>Joint width</th>
<th>10 mm</th>
<th>15 mm</th>
<th>20 mm</th>
<th>25 mm</th>
<th>30 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint depth</td>
<td>8 mm</td>
<td>8 mm</td>
<td>10 mm</td>
<td>12 mm</td>
<td>15 mm</td>
</tr>
<tr>
<td>Joint length/600 ml</td>
<td>~7.5m</td>
<td>~4.5m</td>
<td>~2.5m</td>
<td>~1.6m</td>
<td>~1.3m</td>
</tr>
</tbody>
</table>
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Shelf Life:
Shelf life is 9 months from the date of manufacturing if stored in original and unopened packaging in a cool dry place away from direct sunlight.

Health & Safety
As with all polyurethane resins, work cleanly at all times. Skin and eye contact should be prevented by the use of plastic or rubber gloves, eye protection, barrier creams and protective clothing. Any resin or hardener in contact with the skin should be removed with warm soapy water or a resin removing cream. NOT solvent. In case of eye contact wash copiously with water and in the case of accidental ingestion, obtain immediate medical attention. Provide good work area ventilation. See MSDS for Further information.

DR. FIXIT offers a wide range of Structural Protection and Waterproofing systems:

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Pidilite MEA Chemicals LLC
PO Box 120657
Dubai, United Arab Emirates
T +971 4 880 0110 F +971 4 889 5588
Web: www.pidilitemea.com

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