PVC EDGETIE™

Internal PVC waterstop, for passive protection of joints in reinforced concrete structures

Applications

PVC EDGETIE™ is an internally cast passive waterstop system manufactured in a range of sizes for sealing joints in concrete structures subject to water pressure. PVC EDGETIE™ waterstops, are suitable for horizontal and vertical applications. They are extruded from high grade pvc compound with first quality plasticisers to form a pliable waterstop which remains flexible at low temperatures. Being cast into the centre of the concrete member, PVC EDGETIE™ waterstops will provide resistance against hydrostatic pressure from both faces.

![PVC Edgetie cast centrally in wall](image)

Details shown are typical illustrations only and not working drawings. For assistance with working drawings and additional technical advice please contact GCP Technical Services.

Advantages

- Proven profile - solid circular end bulbs promote better concrete compaction and simplifies site jointing
- Flexible - will accommodate movement during construction and service life
- Valve action - created by concrete shrinkage around end bulbs
- Edge flange with reinforced eyelets - provides positive anchorage for tying wires fastened through reinforced wiring holes.

Limitations

Recommended movement range for PVC EDGETIE™ to be limited to 12 mm. Movement in excess of this should use the Servitite® waterstop range.
Installation

A continuous waterstop network should be used at all joints to prevent the ingress of moisture using only factory produced fabrications for changes of direction or profile with site jointing limited to simple butted welds. Before concreting, waterstops must be clean and free from concrete laitance, oil, grease or any other contamination that might prevent a good waterstop to concrete bond.

Slab joints

The PVC EDGETIE™ is supported in specially prepared split stop-end formwork which holds the waterstop in the horizontal plane to prevent displacement and folding so that half its width will be cast into the concrete approximately half way through the thickness of the slab. Care must be taken to ensure that the waterstop is retained in the horizontal plane and that adequate compaction of concrete takes place below the web of the waterstop in order to avoid “honeycombing”. Lifting the waterstop during compaction to release entrapped air will assist in forming dense compacted concrete. After stripping the formwork supporting the waterstop, the second half can be cast into the adjoining slab with similar precautions taken with regard to “honeycombing”.

Wall joints

PVC EDGETIE™ must be supported in split-end form work as described for slab joints, with great care taken to ensure that the waterstop does not fold over under the weight of the poured concrete. The waterstop should be securely wired to the reinforcing steel using the wiring holes provided.

<table>
<thead>
<tr>
<th>SIZE OF WATERSTOP</th>
<th>MINIMUM CONCRETE SECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC 210</td>
<td>215 mm</td>
</tr>
<tr>
<td>PVC 210</td>
<td>265 mm</td>
</tr>
</tbody>
</table>

Note: The above information assumes that waterstops are installed centrally in a joint.

Supply

<table>
<thead>
<tr>
<th>CONSTRUCTION/EXPANSION/MOVEMENT JOINTS</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>PVC EDGETIE™ 210</td>
<td>10.0 m rolls wt 17 kg</td>
</tr>
<tr>
<td>PVC EDGETIE™ 260</td>
<td>7.5 m rolls wt 20 kg</td>
</tr>
</tbody>
</table>

Equipment by GCP

- Welding Jig
  - Jig PVC EDGETIE™ 210/260
- Welding Knives
  - Electric Knife 110v and 220v

Equipment by Others: Fine tooth saw, wire brush, Stanley knife, 110v or 220v power source, blow lamp if non-electrical mild steel knife is used.
Physical Properties

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TYPICAL VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength</td>
<td>≥ 14 N/mm²</td>
</tr>
<tr>
<td>Elongation at break</td>
<td>&gt; 250%</td>
</tr>
<tr>
<td>Shore A Hardness</td>
<td>80 ± 4</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Health and Safety

There is no legal requirement for a Safety Data Sheet (SDS) for Aerofil. For health and safety questions on these products please contact GCP Applied Technologies. For PVC EDGETIE™, Servitite and GCP Sealants read the product label and SDS’s before use. Users must comply with all risk and safety phrases. SDS’s can be obtained from GCP Applied Technologies or from our web site at gcpat.com.

Specification Clause

PVC EDGETIE™ waterstops of the size and dimension specified shall be used to form a continuous network as shown on the detailed drawings and fixed in position with site jointing limited to simple butted welds, strictly in accordance with the manufacturer’s instructions and supplied by GCP Applied Technologies.

Bending Radii of PVC EDGETIE™

<table>
<thead>
<tr>
<th>SIZE</th>
<th>FLAT PLANE</th>
<th>ON EDGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC 210</td>
<td>7.6 m</td>
<td>100 mm</td>
</tr>
<tr>
<td>PVC 260</td>
<td>9.1 m</td>
<td>150 mm</td>
</tr>
</tbody>
</table>

These bending radii are based on an ambient temperature of 20 °C and will increase slightly at lower temperatures.

All test results shown in this data sheet are determined under laboratory conditions and with the product sample taken directly from stock in its original packing without any alteration or modification of its component parts.
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www.gcpat.uk/solutions/products/waterstops/pvc-edgetie