

Concrete Joint Protection - Waterstops

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.

It is essential to form a continuous waterstop network at all joints using only factory produced fabrications for changes of direction or profile, with site jointing limited to simple butt welds.

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 fully continuous waterstop network shall be formed using only factory made junctions with site joints limited to simple butt welds between similar sections.

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

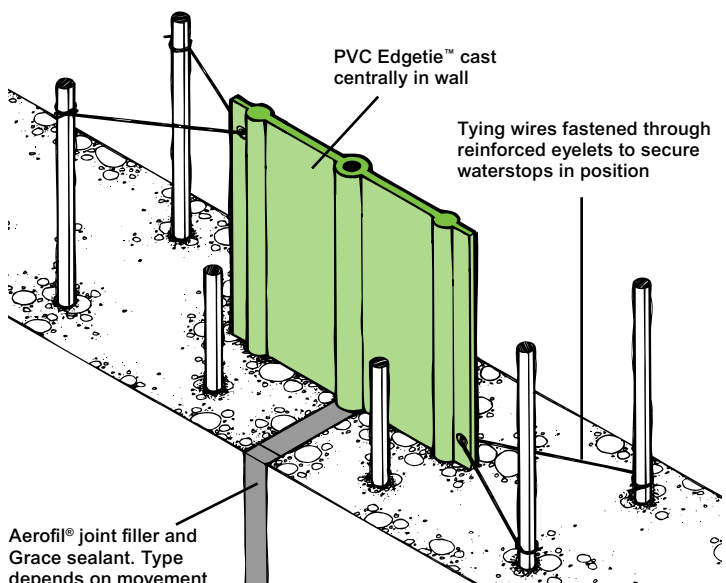
PVC Edgetie must be supported in split-end form work as described for slab joints, with great care taken to ensure that the waterstop does not fold over under the weight of the poured concrete. The waterstop should be securely wired to the reinforcing steel using the wiring holes provided.

Size of waterstop	Minimum Concrete Section
PVC 210	215 mm
PVC 210	265 mm

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

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.



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



Supply

Construction/expansion/movement joints

PVC Edgetie™ 210	10.0 m rolls wt 17 kg
PVC Edgetie™ 260	7.5 m rolls wt 20 kg

Equipment by Grace

Welding Jig
Jig PVC Edgetie™ 210/260

Welding Knives

Electric Knife 110v

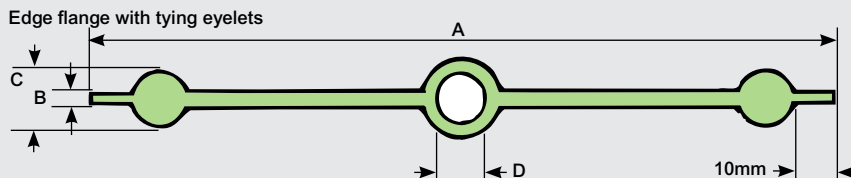
Equipment by Others: Fine tooth saw, wire brush, Stanley knife, 110v or 220v power source, blow lamp if non-electrical mild steel knife is used.

Physical Properties

Property	Values
Tensile Strength	$\geq 14 \text{ N/mm}^2$
Elongation at break	250%
BS Softness	42
Specific Gravity	1.42

Compound Tested in accordance with BS 2782 and are typical values.

PVC Edgetie - nominal dimensions



Size	A	B	C	D
PVC 210	210 mm	5 mm	13 mm	8 mm
PVC 260	260 mm	5 mm	19 mm	13 mm

All declared values shown in this data sheet are based on test results 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.

Bending Radii of PVC Edgetie

Size	Flat Plane	On Edge
PVC 210	7.6 m	100 mm
PVC 260	9.1 m	150 mm

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

Health and Safety

There is no legal requirement for a Material Safety Data Sheet for Aerofil. For health and safety questions on these products please contact Grace Construction Products Limited.

For PVC Edgetie, Servitite and Grace Sealants read the product label and Material Safety Data Sheets (MSDS's) before use. Users must comply with all risk and safety phrases. MSDS's can be obtained from Grace Construction Products or from our web site at www.graceconstruction.com.

Irritating fumes (Hydrogen Chloride) will be liberated when the product is heat welded. Ensure adequate ventilation.

Specification Clause

Grace 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 butt joints, strictly in accordance with the manufacturer's instructions and supplied by Grace Construction Products Limited, Ipswich Road, Slough, Berkshire SL1 4EQ, United Kingdom.

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