

Concrete Joint Protection - Waterstops

Servitite®

Internal PVC waterstop system for passive protection of movement joints and construction joints in reinforced concrete structures.

Applications

Servitite® is an internally cast specially formulated PVC waterstop system manufactured in a range of sizes for use in reinforced concrete structures. Being cast into the centre of the concrete member, Servitite® waterstops will provide resistance against high hydrostatic pressure from both faces.

It is essential to form a continuous waterstop network at all joints to prevent the ingress or escape of moisture/water. For changes of direction or profile only factory produced fabrications should be used with site jointing limited to simple butt welds.

Installation

Slab joints

Servitite should be supported in specially prepared split stop-end formwork which holds the waterstop in the horizontal plane so preventing displacement and folding so that half of 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

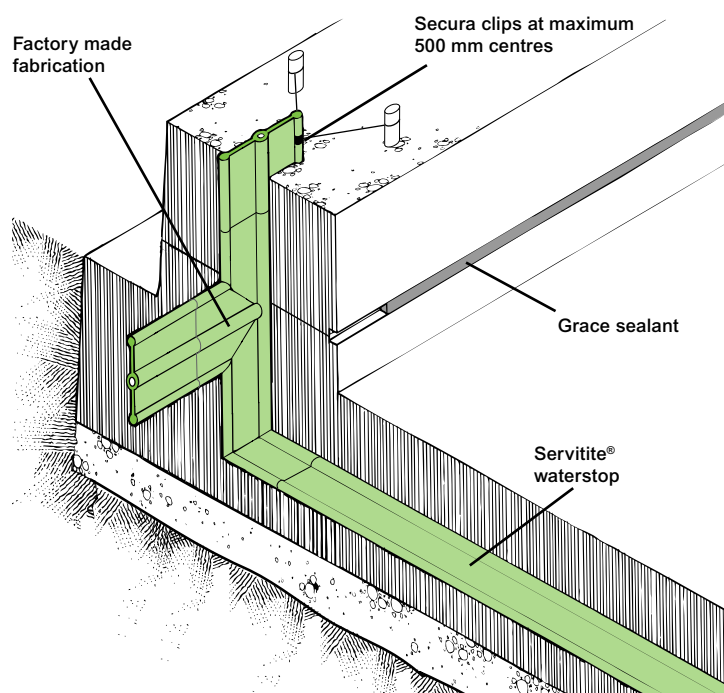
Servitite must be supported in split-end form work as described for slab joints, with great care taken to ensure that the waterstop does not fold over under the weight of poured concrete. The waterstop may be securely wired to the reinforcing steel using the appropriate Secura Clips supplied, clipped over the end bulbs as shown overleaf. A fully continuous waterstop network must be formed using only factory made junctions with site joints limited to simple butt welds of similar section.

Size of waterstop	Minimum Concrete Section
Servitite 150	160 mm
Servitite 230	240 mm
Servitite 305	315 mm

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

Advantages

- **Robust profile** - large solid circular end bulbs promote better anchorage and embedment into concrete and simplifies site jointing.
- **Flexible** - will accommodate large movements during construction and service life.
- **Pliable** - remains flexible at low temperatures.
- **Valve action** - created by concrete shrinkage around end bulbs and adjacent fin formation.
- **Thick web** - 10 mm thickness prevents folding over and displacement during concrete pouring.
- **Common section for easy installation** - for construction and expansion joints subject to thermal movement and deflection.



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

Normal construction/movement joints

Servitite® 150	7.5 m rolls wt 20 kg
Servitite® 230	5.0 m rolls wt 23 kg
Servitite® 305	5.0 m rolls wt 26 kg

Factory made junctions and fabrications Available in sizes and configurations to suit the site requirements.

Ancillary Products

Secura Clip Small (20mm)	Unit for Servitite® 150
Secura Clip Large (25mm)	Unit for Servitite® 230 and 305

Equipment by Grace

Jointing Jig
Jig Servitite® 150/230/305

Welding Knives

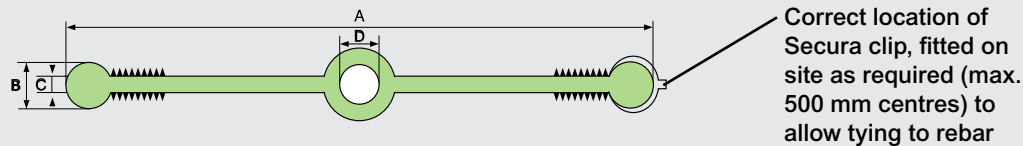
Electric Knife 110v

Equipment by Others: Fine tooth saw, wire brush, Stanley knife, 110v or 220v power source.

Physical Properties

Property	Values
Tensile Strength	≥ 14 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.



Size	NOMINAL Dimensions				Secura clip size
	A	B	C	D	
150	150 mm	19 mm	10 mm	13 mm	20 mm
230	230 mm	25 mm	10 mm	20 mm	25 mm
305	305 mm	25 mm	10 mm	20 mm	25 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.

Health and Safety

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

For 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.

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