

SERVISEAL[®] Wide Joint 500

External PVC waterstop for movement joint in reinforced concrete structures, specially designed for wide joint opening

Description

SERVISEAL[®]Wide Joint is a PVC waterstop designed for movement joint in concrete basements and sub-structures where opening from 100 mm to a maximum additional extension of 50 mm is required, typically as in seismic area. It is suitable for both horizontal (non suspended slabs) and vertical application; it provides a passive, permanent, physical barrier to water ingress. The six T shape ribs provide a secure anchorage in the concrete for a better sealing of the joint. Located on the external concrete face SERVISEAL[®] ensures maximum concrete compaction around the ribs and an excellent waterstop to concrete seal minimising the likelihood of water ingress and providing better corrosion protection for the reinforcement.

SERVISEAL[®] can be used in Type B (BS8102: 2009) reinforced concrete structures to protect against water ingress through movement for water-resisting basements. As part of the GCP system, SERVISEAL[®] provides joint protection for up to Grade 3 basements as defined in BS8102: 2009.

Advantages

- Suitable for opening joint of 100mm, up to an extension of 150 mm in total
- Convenient installation – fix on shutter not in middle of reinforcement network
- Easy welding – melting temperature is easily reached to facilitate the welding operation
- Pliable remains flexible at low temperature
- Structure protection – external waterstops prevent water ingress at the outside face of the structure
- Enhanced watertightness – six ribs for a better anchoring and tortuous water path
- High quality PVC compound – ensures long term expansion performance
- Compatibility – SERVISEAL[®] is compatible with all GCP joint protection products and below ground water proofing systems
- Salt water resistant – unaffected by salt water and saline conditions.

Application

According to BS 8102:

- Joint protection of water-resisting basements – Type B protection
- Joint protection of water-resisting basements with PREPRUFE[®] system – Type A protection.
- Joint protection of water-resisting basements with HYDRODUCT[®] CF system – Type C protection.

Tunnels and subway

Abutments and retaining walls

Limitations

SERVISEAL® is not suitable for walls of water retaining structures which should always have SERVITITE® waterstops cast centrally in the concrete wall to resist the internal water pressure.

Installation

A continuous waterstop network should be used at all joints to prevent the ingress of moisture using only factory produced fabrication 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.

Water resisting basement (out of PREPRUFE® system):

For horizontal application, SERWISEAL® Wide Joint 500 should be loose laid direct on to the blinding concrete with timber stopends. For vertical application, mechanically fix the waterstop to the formwork at 250 mm intervals staggered either side of the central rib. Mechanical fixings should not be fixed too tightly to the formwork otherwise removal of formwork may cause debonding of the waterstop from the concrete.

Water resisting basement with PREPRUFE® system:

For horizontal application at the joint location, SERWISEAL® Wide Joint 500 should be placed onto the PREPRUFE® using BITUSTIK™ between the membrane and the waterstop. For vertical application the complete length of SERWISEAL® will require bedding onto BITUSTIK™ and PREPRUFE® with additional mechanical fixings required at the top of the vertical length to keep it in place.

Welding:

The welding operation are made using the GCP welding machine.

The two ends of the waterstop to be joined must be straight. They are placed on plate of welding machine. One end of waterstop is held firmly in position with the welding jig. Place the spacer against the fixed one end and adjust the free end of the waterstop to touch the spacer and clamp it with the welding jig. The edge of each end of waterstop should completely touch the spacer. Check the temperature of the heated welding knife with a small off-cut of SERWISEAL® waterstop. If the welding knife is too hot the PVC smokes and burns, if too cold then the PVC does not melt.

The welding knife heated to the correct welding temperature is placed between the two sections of waterstop. The waterstop ends are pressed onto the heated blade using the lever and held in position to allow the waterstop to melt along the full width of each face so that an even melted bead of PVC is seen. Using the lever slide the jig apart and smoothly remove the welding knife before immediately bringing the welding jig together to join the waterstop ends in the welding jig. Hold firmly for 30 seconds. The joint is now correctly jointed.

Supply

SERVISEAL® Wide Joint 500	10 m coil
Weight	71 kg
Standard Junction	Flat L / Flat T / Flat X / Vert L / Rev Vert L
Special Junction Fabrication	Junction made on demand to suit with site requirements. Please contact your GCP representative.
Ancillary Products	AEROFIL®, GCP Sealants
Equipment by GCP	<p>Welding machine: supplied in tool box including welding machine, heated welding knife, spacer, sponge & instruction manual.</p> <p>Jointing Jig: Jig SERVISEAL® Wide Joint to be used with welding machine</p>

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

Typical Properties

PROPERTY	VALUE	TEST METHOD
Shore Hardness A	75 ± 5	ISO 868
Tensile Strength	> 10 N/mm ²	ISO 527-2
Elongation at break	> 300 %	ISO 527-2

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 Safety Data Sheet for SERVISEAL® or AEROFIL®. For health and safety questions on these products please contact GCP Applied Technologies. For GCP Sealants read the product label and Safety Data Sheet (SDS) 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. Irritating fumes (Hydrogen Chloride) will be liberated when the product is heat welded. Ensure adequate ventilation. Ensure adequate provisions are made for safe lifting and handling.

NBS Specification Clause

Refer to Clause E40 310.

North America customer service: 1-877-4AD-MIX (1-877-423-6491)

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