

Adcor[®] 500S

Thick-sectioned, conformable, hydro-expansive waterstop for preventing water entry through joints in concrete sub-structures

A conformable, swellable polymer/butyl rubber waterstop strip that expands in contact with water. When fully encapsulated by poured concrete, the expansive forces form a seal against concrete faces. The seal resists hydrostatic pressure, stopping water from entering sub-structures.

Adcor[®] is a unique product that has been specifically developed to provide higher performance than bentonite or conventional swellable rubber waterstops. Superior performance arises from:

- Controlled, reproducible, volumetric expansion.
- Cohesive strength maintained after volumetric expansion.
- Malleable and plastic, enabling easy application to a variety of concrete profiles.

GCP can also uniquely provide continuity of swellable waterstops at construction joint/movement joint intersections. This is achieved by linking Adcor 500S with Servitite[®]AT 200 co-extruded hydrophilic/ PVC waterstops (see detail).

Applications

- Construction joints in in-situ concrete structures
- Casting new concrete against existing
- Floor slabs cast against diaphragm retaining walls, steel sheet piles and secant piled walls
- Joints between floor slabs and pile caps
- Pipe penetrations through floors and walls
- Remedial 'breaking out' of concrete

System Components

Adcor 500S

25mm x 20mm waterstop strip, supplied in 5m rolls.

Adcor Mastic

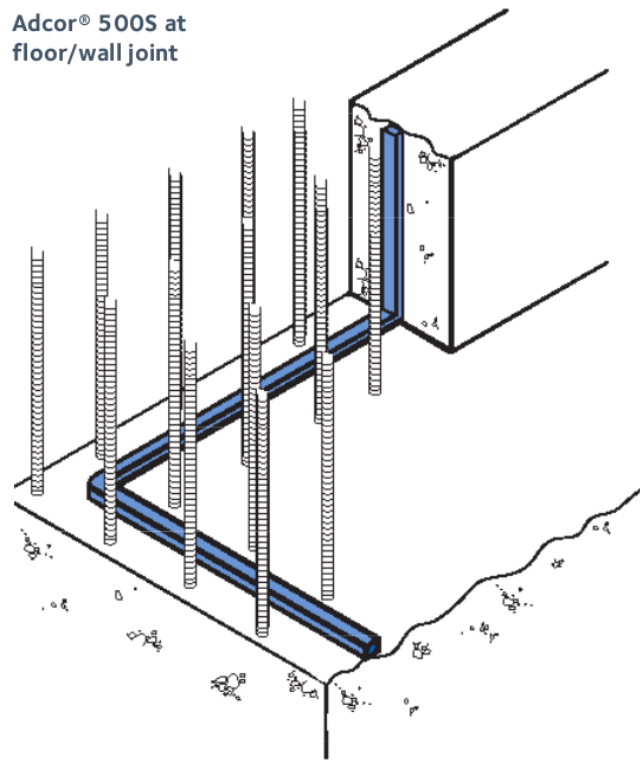
A hydrophilic mastic for use as a bedding bead on irregular concrete surfaces prior to the application of Adcor 500S. Adcor Mastic can also be used as a stand alone hydrophilic sealant where application of Adcor 500S is impractical.

Adcor Adhesive MS

An adhesive for gluing Adcor 500S to smooth concrete, steel and plastic substrates. Supplied in cartridges for gun application.

Pak Adhesive™

A contact adhesive for gluing Adcor 500S to smooth concrete, steel and plastic substrates. Supplied in cans for brush application.



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

Limitations

Not suitable for use in movement joints (use GCP co-extruded AT System). Not suitable for use with pre-cast concrete components.

Design

Waterstop networks must be continuous through all joints and penetrations if they are to be effective. If movement joints are necessary use Servitite®AT 200 or Serviseal®AT 240 PVC waterstops with co-extruded hydrophilic end bulbs. Adcor 500S can be easily jointed to these profiles (see detail).

Installation

1. Concrete surfaces must be clean and free of all contaminants. Remove all concrete spatter and nibs.
2. On irregular concrete faces gun a 10mm bead of Adcor Mastic as a bedding for Adcor 500S.
3. Fix Adcor 500S using masonry nails 40mm to 50mm long with a washer 20mm in diameter. Hilti EM6-20-12 FP8 shot fired fixings with 6mm nuts and 20mm diameter washers may also be used. Fixings should be spaced at a maximum of 300mm centres.

1. Adcor Adhesive MS can be used on clean substrates, wire brushed to remove all dust, dirt, rust and other contaminants. The adhesive is damp surface tolerant but will not adhere to wet surfaces. Gun a 10mm bead onto the substrate, and press Adcor 500S firmly into place.
2. Pak Adhesive must be applied to dry substrates only. Apply by brush to both the substrate and Adcor 500S. Wait until both surfaces are dry to touch, then press Adcor 500S firmly into place.
3. At all movement joints, link with GCP co-extruded AT System waterstops using Secura clips (see detail).
4. All joints should be overlapped 100mm. Ensure full contact between jointed pieces.
5. Adcor 500S can be bent around corner. However on complex geometry use Adcor Mastic as a gap filler.
6. Any damaged sections should be removed and repaired with either a new section of Adcor 500S or a 25mm min bead of Adcor Mastic.
7. Keep Adcor 500S dry prior to pouring concrete.

Product Advantages

- Controlled volumetric expansion - reduces risk of concrete spalling.
- Conformable – can be installed onto a variety of irregular substrates.
- Retains cohesive strength at both original and expanded volume.
- No need for protective steel mesh.
- Resists at least 6 bar (60m) hydrostatic pressure.
- Volumetric expansion min 100% in cement water.
- Simple overlap jointing on site.
- Reproducible swell after wet – dry cycling.
- Contains no sodium bentonite.
- Can be easily joined to PVC waterstops at movement joints.
- Unaffected by freeze/thaw cycling.



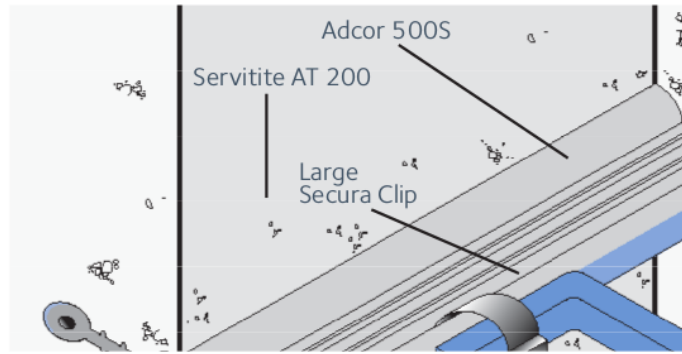
Supply

Adcor 500S	5m rolls 6 rolls/carton 30 cartons/pallet pallet weight 700kg
Adcor Mastic	310mL cartridge
Adcor Adhesive MS	310mL cartridge

Ancillary Products

Adcor 500S Mesh Profile	1m strips, 30 strips/bundle
Large Secura Clips	Each

Adcor[®] 500S attached to Servitite[®] AT 200 at Movement Joint



Technical Data

	TYPICAL VALUE
Profile Size	25mm x 20mm
Colour	Light Blue
Volumetric Expansion in Cement Water	min 100%
Water Pressure Resistance	>6 bar (60m)
Density	1.46kg / cm ³
Weight	0.7kg / m
Maximum Bend	180° at 0°C
Application Temperature Range	-15°C to 60°C
Service Temperature Range	-45°C to 120°C
Minimum Concrete Cover	70mm
Minimum Overlap	100mm

Health and Safety

Adcor Mastic

Read the product label and Material Safety Data Sheet before use. Users must comply with all risk and safety phrases.

Adcor 500S

There is no legal requirement for a Material Safety Data Sheet for Adcor 500S. For health and safety questions on this product please contact your local GCP representative.

Technical Services

For assistance with working drawings for projects and additional technical advice, please contact GCP Applied Technologies.

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