

Swellable waterstop for in-situ concrete

Uses

Integral sealing for construction joints in concrete cast insitu.

Convenient and problem solving in situations where a conventional waterstop would require complex shutting.

Typical uses include secant piled and diaphragm walled basements, pile caps and casting against old concrete.

Supercast SW10 can provide simple solutions to detailing pipe entries, construction joints in the vertical plane and to kicker joints.

Advantages

- Easy to install
- Supercast SWX swellable adhesive enables full intergration of Supercast SW10 and Supercast PVC networks
- Solves detailing problems in conjunction with Supercast PVC range
- Swelling properties unaffected by long term wet/dry cycling
- Sustains effective seal in wet conditions
- Delayed swell action allowing extra tolerance on site

Standards

Suitable for use in contact with potable water - Water Byelaws Scheme Approved product.

Description

Supercast SW10 is a swellable waterstop that can be installed and positively linked into conventional Supercast PVC waterstop networks.

This allows the use of Supercast PVC for expansion joints and Supercast SW10 for construction joints, all the time maintaining an intergrated network.

Supercast SW10 is made from high performance synthetic elastomeric strips. The swelling action is the result of contact between water and hydrophilic groups which are part of the Supercast SW10 'Basic polymer' molecular structure.

The hydrophilic groups are not subject to extraction or loss of swelling performance by prolonged or repeated wetting. This is a unique feature of the basic polymer. Expansion of the waterstop creates a positive pressure against the face of the concrete joint, thus preventing water passing through the protected joint.

Design criteria

Supercast SW10 should be used to prevent the passage of water through non-movement joints in both new in-situ concrete and between new and existing concrete.

Supercast SW10 increases in volume in the range of upto 300% and gives a resistance to hydraulic heads of upto 30 meters.

Swelling of Supercast SW10 in fresh concrete is minimal and most of the volume swell takes place after the initial setting of the concrete has taken place.

Supercast SW10 is suitable for application between existing and newly placed concrete where there is complete steel continuity.

Supercast SW10 waterstops should be positioned to ensure a minimum of 75mm cover of concrete to accommodate pressure developed during the swelling process.

Properties

Form	Black Rectangular section elastomeric strips
Size	5mm x 20mm
Solid content	100%
Unrestrained volumetric expansion	upto 300%
Application temperature range	-20° to 50°C
Service temperature range	-30° to 70°C
Hydrostatic pressure resistance	30 meters (3 bar)

Specification

Supplier Specification

Water swellable - Basic polymer - hydrophilic waterstop (and attachments) where shown on the drawings, shall be Fosroc Supercast SW10 obtained from Fosroc. It shall be used in accordance with the manufacturer's current application instructions.

Supercast SW10

Performance Specification

Water swellable - Basic polymer - hydrophilic waterstop, where shown on the drawings, shall be made from a performed elastomeric strip that can integrate into existing waterstop networks. It shall be free from rubber, bentonite and other inclusions. The waterstop shall have an unrestrained volumetric expansion of upto 300%. It not must deteriorate under prolonged wet/dry cycling. It must be able to withstand a hydrostatic head of 30 meters (3 bar). It shall be used in accordance with the methods given in the manufacturer's current datasheet.

Instructions for use

Supercast SW10 may be positioned by bonding with either Supercast SWX or Supercast SW adhesive. The waterstop may be installed either into a groove cast in the concrete or directly onto the concrete surface. Nailing may also be used provided that rough surfaces are filled with Supercast SWX.

Limitations

Supercast SW10 should not be used for expansion joints or those subject to significant repetitive movements.

Supercast SW10 should not be installed with less than 75mm of concrete cover to ensure that the pressure arising from the swelling action is accommodated.

Supercast SW10 should not be used in locations that allow free unrestrained swelling.

Estimating

Supply

Supercast SW10 is supplied in 15m rolls

Supercast SW10 should be stored in cool dry conditions, away from sunlight, in the original, unopened containers. Supercast SW10 has a shelf life of 12 months.

Precautions

Health & Safety

There are no health hazards associated with Supercast SW10 in normal use.

Additional Information

Fosroc manufactures a wide range of complementary products which include :

- waterproofing membranes & waterstops
- joint sealants & filler boards
- cementitious & epoxy grouts
- specialised flooring materials

Fosroc additionally offers a comprehensive package of products specifically designed for the repair and refurbishment of damaged concrete. Fosroc's 'Systematic Approach' to concrete repair.

For further information on any of the above, please consult your local Fosroc office - as below.

Important note :

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation or information given by it.



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