

High swell hydrophillic waterstop for in-situ concrete

Uses

Integral sealing for construction joints in concrete cast in-situ where high swell performance is demanded, such as in highly saline ground conditions.

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

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

Supercast SW30 can provide simple solutions to detailing pipe entries, construction joints in the vertical plane and to kicker joints.

Can be linked to Supercast PVC* waterstops to give an effective combination of waterstops which maintain network continuity.

Advantages

- Easy to install
- Supercast SWX swellable adhesive enables full integration of Supercast SW30 with Supercast PVC networks.
- Solves detailing problems in conjunction with Supercast PVC range.
- Swelling properties unaffected by long term wet/dry cycling.
- Performs effectively in saline ground conditions.
- Sustains effective seal in wet conditions

Standards compliance

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

Description

Supercast SW30 is a swelling 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 SW30 for construction joints, all the time maintaining an integrated network.

Supercast SW30 is made from high performance synthetic elastomer strips. The high swelling action is the result of contact between water and hydrophillic groups which are part of the Supercast SW30 'Basic Polymer' molecular structure.

The hydrophillic 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 SW30 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 SW30 increases in volume up to a maximum of 200% and gives resistance to hydraulic pressure.

Swelling of Supercast SW30 in fresh concrete is minimal, therefore maximizing the positive pressure to seal the joint.

Supercast SW30 is suitable for application between existing and newly placed concrete where there is little or no steel continuity and where up to 2mm movement may occur.

Supercast SW30 waterstops should be positioned to ensure that a minimum of 100 mm cover of concrete is present to accommodate pressure developed during the swelling process.

Properties

Form	: Green or Black rectangular section elastomeric strips
Size	: 10mm x 20mm
Solids content	: 100%
Unrestrained volumetric expansion	: Up to 500%
Applicable temperature range	: -20° to 50°C
Service temperature range	: -30° to 70°C
Hydrostatic pressure resistance	: 100 metres (10 bar)
Water tightness	: Seals up to 2mm gap if used in conjunction with Supercast SWX or Supercast SW Adhesive

Supercast SW30*

Specification

Supplier specification

Water swellable - Basic Polymer - hydrophillic waterstop where shown on the drawings, shall be made from a preformed elastomeric strip which can integrate into existing waterstop networks. It shall be free from rubber, bentonite or other inclusions. The waterstop shall have an unrestrained volumetric expansion of upto 500%. It must not deteriorate under prolonged wet/dry cycling. It must be able to withstand a hydrostatic head of 100 metres (10 bar). It shall be used in accordance with the methods given in the manufacturer's cement data sheet.

Instructions for use

Supercast SW30 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.

Limitations

- Supercast SW30 should not be used for expansion joints or those subject to significant repetitive movements.
- Supercast SW30 should not be installed with less than 100 mm of concrete cover to ensure that the pressure arising from the swelling action is accommodated.
- Supercast SW30 should not be used in locations which allow free unrestrained swelling.
- Installation using nailing is not recommended as nails can damage the concrete

Estimating

Supply

Supercast SW30 : 5 m rolls

Storage

When stored in cool dry conditions, away from sunlight, in the original, unopened containers Supercast SW products have a shelf life of 12 months.

Precautions

Health and Safety

There are no health hazards associated with Supercast SW30 in normal use.

Ancillary materials

Supercast SWX

Form : Elastomeric water swellable paste

Colour : Grey

Tack free time : Approx 1 hour (20°C/50% RH)

Cure rate : 3mm in 24 hours

Volume swell ratio : 200%

Concrete pour : 2 to 8 hours

Adhesion : Can be used on damp concrete provided it is rag dry

The above data represents typical values and should not be considered as a purchase specification.

* Denotes trademark of Fosroc international Limited.

Supercast SW30*

(Formerly Supercast SW20Plus)

Important note :

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Berger Fosroc Limited

Corporate Address:

'Berger House', House # 08, Road # 02, Sector # 03, Uttara Model Town, Dhaka 1230, Bangladesh.

telephone(Hunting) : +880248953665, fax : +880248951350,

e-mail : enquiry.bangladesh@bergerfosroc.com, website : www.bergerfosroc.com

