

Supercast SW30

constructive solutions

High swell hydrophilic 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 that maintain network continuity.

Advantages

- .. Easy to install
- .. Supercast SWX swellable adhesive enables full integration of Supercast SW30 and 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

Description

Supercast SW30 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 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 hydrophilic groups which are part of the Supercast SW30 '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 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 in the range of up to 500% and gives a resistance to hydraulic heads of up to 50 metres.

Swelling of Supercast SW30 in fresh concrete is minimal and most of the volume swell takes place after the initial setting of the concrete has taken place.

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 115 mm cover of concrete is present to accommodate pressure developed during the swelling process.

Properties

Form:	Green Rectangular section elastomeric strips
Size:	10mm X 20mm
Solids content:	100%
Unrestrained volumetric expansion:	Up to 500%
Application temperature range:	-20° to 50°C
Service temperature range:	-30° to 70°C
Hydrostatic pressure resistance:	50 metres (5 bar)
Watertightness;	Seals up to 2mm gap if used in conjunction with Supercast SW adhesives

Specification

Supplier specification

Water swellable - Basic Polymer - hydrophilic waterstop (and attachments) where shown on the drawings, shall be Fosroc Supercast SW30 obtained from Fosroc. It shall be used in accordance with the manufacturer's current application instructions.

Performance specification

Water swellable - Basic Polymer - hydrophilic waterstop, where shown on the drawings, shall be made from a preformed elastomeric strip that 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 up to 500%. It

Supercast SW30

must not deteriorate under prolonged wet/dry cycling even in highly saline ground conditions. It must be able to withstand a hydrostatic head of 50 metres (5 bar). It shall be used in accordance with the methods given in the manufacturer's current 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 115mm of concrete cover to ensure that the pressure arising from the swelling action is accommodated.

Supercast SW30 should not be used in locations that allow free unrestrained swelling.

Estimating

Supply

Supercast SW30:	5 m rolls
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Storage

When stored in cool dry conditions, away from sunlight, in the original unopened containers all 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:	Approximately 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.
Coverage:	6 mm diameter bead - 11 m run 12 mm diameter bead - 2.7 m run

Supercast SW Adhesive

Form:	Grey paste
Application temperature:	5°C to 30°C
Maximum open time:	30 minutes
Concrete pour:	2 to 8 hours
Adhesion:	Can be used on damp concrete provided it is rag dry.
Coverage:	6 mm diameter bead - 13.5 m run 12 mm diameter bead - 3.4 m run

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

†See separate datasheet.



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Important note

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