

Supercast SW10



constructive solutions

General purpose swellable waterstop for in-site concrete

Uses

Integral sealing for construction joints in concrete cast in-situ

Advantages

- Cost-effective alternative to PVC
- Easy to install by bonding, nailing or casting into joint faces
- Factory-made connectors enable full integration of Supercast SW10 and Supercast PVC networks
- Good durability during wet/dry cycling
- Tolerant of salts in concrete and groundwater
- Sustains effective seal in wet conditions
- Highly adaptable to accommodate complex joint shapes

Standard compliance

Suitable for use in contact with potable water - Water Byelaws Scheme Approved Product: Listing No. 9701510.

Description

The Supercast SW range consists of swellable waterstops, fixing adhesives and attachments which enable Supercast SW sections to 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 integrated network.

Supercast SW10 is blended polymer hydrophilic waterstop. The swelling action is the result of contact between water and hydrophilic groups in the polymers molecular structure.

These hydrophilic groups display good consistency in swell rate during repeated wet/dry cycling. Expansion of Supercast SW10 creates a positive pressure against the faces of the concrete joint, thus preventing water passing through the protected joint.

Technical support

Fosroc offers a comprehensive range of high performance, high quality, construction products all backed by a BS EN ISO 9001 registered quality scheme. Fosroc offers a technical support package to specifiers and contractors which includes computer-aided design (CAD) standard details and technical advice from staff unrivalled experience in the industry.

Design criteria

Supercast SW10 should be used to prevent the passage of water through non-movement joint in both new in-situ concrete and between new and existing concrete. Supercast SW10 increases in volume between 200% and 300%. Swelling of Supercast SW10 in fresh concrete is minimal and most of the volume swell takes place after the initial hardening of the concrete has taken place.

Supercast SW10 waterstop should be positioned to ensure that a minimum of 70 mm cover of concrete is present to accommodate pressure developed during the swelling process.

It is recommended that the strip is fixed by both adhesive and mechanical means to ensure maximum contact with the joint faces and to avoid displacement when pouring the fresh concrete.

Properties

| | |
|--------------|--|
| Form: | Rectangular section elastomeric strips |
|--------------|--|

| | |
|----------------------|-----------|
| Nominal size: | 5 x 20 mm |
|----------------------|-----------|

| | |
|-----------------------|------|
| Solid content: | 100% |
|-----------------------|------|

| | |
|----------------|-------|
| Colour: | Black |
|----------------|-------|

| | |
|----------------------------|----|
| Hardness Shore 'A': | 45 |
|----------------------------|----|

Unrestrained volumetric

| | |
|-------------------------|--------------|
| expansion ratio: | 300% maximum |
|-------------------------|--------------|

Application temperature

| | |
|---------------|--------------|
| range: | -5°C to 50°C |
|---------------|--------------|

Service temperature

| | |
|---------------|---------------|
| range: | -30°C to 70°C |
|---------------|---------------|

Specification clauses

Supplier specification

Water swellable - Blended Polymer - hydrophilic waterstop (and attachments) shall be Supercast SW10, obtained from Fosroc. It shall be used in accordance with the manufacturer's current application instructions.

Performance specification

Water swellable - Blended Polymer - Hydrophilic waterstop shall be made from a preformed elastomeric strip which can integrate into existing waterstop networks. The waterstop shall have an unrestrained volumetric expansion of not more than 300%, It shall not deteriorate under prolonged wet/dry cycling. It must be used in accordance with the methods given in the manufacturer's current date sheet.

Supercast SW10

Application instructions

Supercast SW10 may be positioned by bonding with the appropriate Supercast SW Adhesive. The waterstop may be installed either into a groove cast in the concrete or directly onto the concrete surface. It is recommended that the waterstop is fixed using both Supercast SW Adhesive in addition to a mechanical fixing method.

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 10 mm of concrete cover to ensure that the pressure arising from the swelling action is accommodated.

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

Estimating

Supply

Supercast SW10: 15 metre rolls

Coverage

Supercast SW 10: Usually single run of strip per joint

The above coverages are approximate and make no allowances for wastage.

Precautions

Health and Safety

Supercast SW10: These are no known health hazards associated with Supercast SW10 in normal use.



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