

DEESA SWB PRO 20

Swellable waterstops for in-situ concrete

Uses

Integral sealing for construction joints in concrete cast in-situ.

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. The Deesa SWB Pro 20 SW range can provide simple solutions to detailing pipe entries, construction joints in the vertical plane and to kicker joints.

They can be linked to Deesa SWB Pro 20 PVC waterstops to give an appropriate effective combination of waterstops which maintain network continuity.

Advantages

- Easy to install by adhesive bonding, or casting into joint faces
- Deesa SWB Pro 20 SW enables full integration of Deesa SWB Pro 20 SW and Deesa SWB Pro 20 PVC networks
- Deesa SWB Pro 20 SW Adhesive can be applied to damp substrates
- Solves detailing problems in conjunction with Deesa SWB Pro 20 PVC waterstops
- Swelling properties unaffected by long term wet/dry cycling
- Tolerant of salts in concrete and groundwater
- Sustains effective seal in wet conditions
- Highly adaptable to accommodate complex joint shapes

Description

The Deesa SWB Pro 20 SW range consists of swellable waterstops; Deesa SWB Pro 20 SW formed sections, gun-applied paste and Deesa SWB Pro 20 SW Adhesive.

Deesa SWB Pro 20 SW sections are made from high performance synthetic elastomer strips. The swelling action of the Deesa SWB Pro 20 SW range is the result of contact between water and hydrophilic groups which are an intimate part of the Deesa SWB Pro 20 SW polymeric structure. These hydrophilic groups are not subject to extraction and loss of swelling performance by prolonged or repeated wetting.

Expansion of the waterstop creates a positive pressure against the faces of the concrete joint, thus preventing water passing through the joint.

Deesa SWB Pro 20 SW is a grey, elastomeric water-swellable gun applied paste. Deesa SWB Pro 20 SW can be used as a swellable adhesive to adhere Deesa SWB Pro 20 SW waterstop to concrete. It has the capability to fill undulations and surface holes in the concrete beneath the waterstop and swell into these when required.

Deesa SWB Pro 20 SW also enables Deesa SWB Pro 20 SW sections to be linked into conventional Deesa SWB Pro 20 PVC waterstop networks. This allows the use of Deesa SWB Pro 20 PVC for expansion joints and Deesa SWB Pro 20 SW for construction joints whilst maintaining an integrated waterproofing network.

Design criteria

Deesa SWB Pro 20 SW 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. Deesa SWB Pro 20 SW increases in volume up to a maximum of 500% and gives resistance to hydraulic pressure.

Swelling of Deesa SWB Pro 20 SW in fresh concrete is minimal therefore maximising the positive pressure seal provided by the hydrophilic to the protected joint.

Deesa SWB Pro 20 SW20 has a larger section and so offers a greater surface area of contact to the concrete in areas of higher risk, such as when waterproofing Grade 3 basements.

All Deesa SWB Pro 20 SW10, SW20, SW25 have a delayed swell action which helps prevent pre-swell during wet site conditions (see limitations).

The minimum thickness of concrete cover required to accommodate pressure developed during the swelling process is 75mm for Deesa SWB Pro 20 SW10, 80mm for SW20 and 90mm for SW25.

Standard compliance

Deesa SWB Pro 20 SW10, SW20 and SW25 are suitable for use in contact with potable water and are Water Regulations Advisory Service approved products.

Drinking Water Inspectorate Regulation 25(1)b of the Water Supply (Water Quality) Regulations 1989.

Certified From:-



DEESA SWB PRO 20

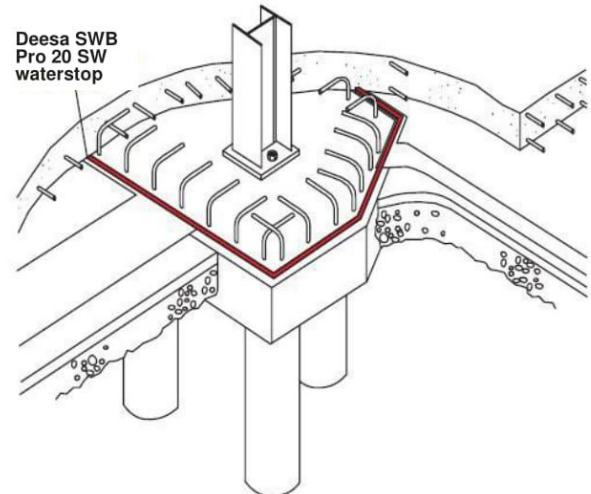


Water swellable polymeric hydrophilic waterstop where shown on the drawings, shall be made from a preformed elastomeric strip which can integrate into existing waterstop networks. It shall be free from rubber, bentonite or other inclusions. The waterstop shall have an unrestrained volumetric expansion of up to 300%. It must not deteriorate under prolonged wet/dry cycling. It must be able to withstand a hydrostatic head of up to 50 metres (refer SW grade). It shall be used in accordance with the methods given in the manufacturer's current data sheet.

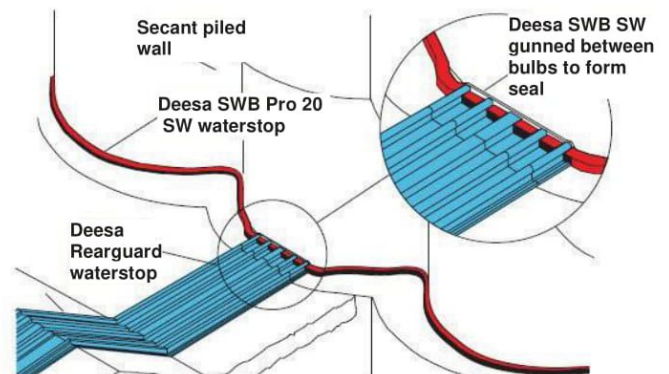
Properties

Form:	Rectangular section elastomeric strips
Size:	
Deesa SWB Pro 20 SW10:	10 mm x 20 mm
Deesa SWB Pro 20 SW20:	20 mm x 20 mm
Deesa SWB Pro 20 SW25:	25 mm x 20 mm
Other sizes on request.	
Solids content:	100%
Colour:	
Deesa SWB Pro 20:	Black
Unrestrained volumetric Expansion ratio:	Up to 500%
Application temperature Range:	-5°C to 50°C
Service temperature Range:	-30°C to 70°C
Hydrostatic pressure Resistance*:	SW10: 30 metres SW20: 50 metres SW25: 70 metres

*(In concrete construction joint with no movement)

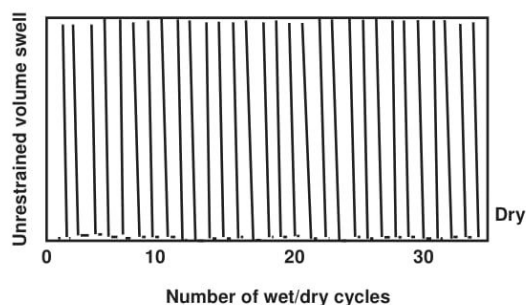


Pile cap detail using Deesa SWB Pro 20 SW waterstop



Deesa SWB Pro 20 SW, Deesa SWB Pro 20 SWX and Deesa SWB Pro 20 Rearguard

waterstops at secant pile wall and floor slab junction



Graphic showing reproducibility of volume swell with wet/dry cycling



DEESA SWB PRO 20



Application instructions

Deesa SWB Pro 20 SW may be positioned by bonding with Deesa SWB Pro 20 SWX or Deesa SWB Pro 20 SW Adhesive. The waterstop may be installed either into a suitable groove cast in the concrete or directly onto the concrete surface.

Estimating

Pack sizes

Deesa SWB Pro 20 SW10: 10 mm x 20 mm x 10 metre rolls

Deesa SWB Pro 20 SW20 : 20 mm x 20 mm x 10 metre rolls

Deesa SWB Pro 20 SW25 : 20 mm x 20 mm x 10 metre rolls

Deesa SWB Pro 20 SW Adhesive: 300 ml cartridge packed in cartons of 20

Coverage

Deesa SWB Pro 20 SW10 /SW20: Usually single run of strip per joint

Deesa SWB Pro 25 : 6 mm diameter bead
(per cartridge) - 11 metres run
12mm diameter bead
- 2.7 metres run

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

Limitations

Deesa SWB Pro 20 SW should not be used for expansion joints or those subject to movements in excess of 2mm.

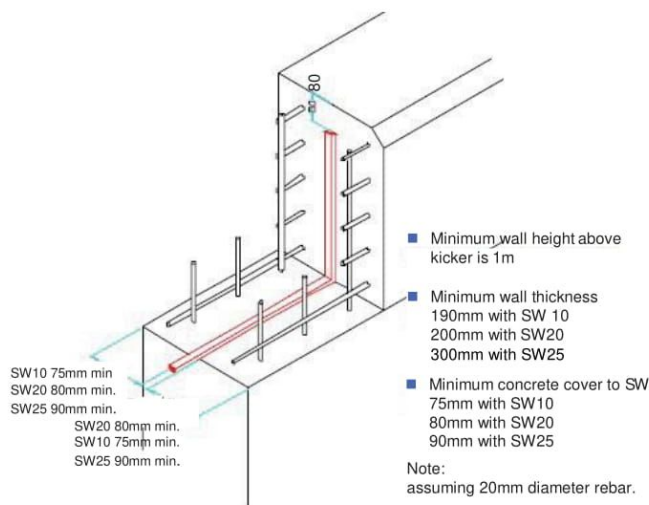
Deesa SWB Pro 20 SW swell rate is dependent on the quality (solids content) of water and the temperature of water. The lower the temperature and the greater the solids content, the lower the swell rate.

Deesa SWB Pro 20 SW should not be used in locations which allow free unrestrained swelling or for free standing walls, such as bund or dwarf walls, where the swell pressure is sufficient to lift the wall from its foundations. Contact Deesa for product/ method recommendations in this case.

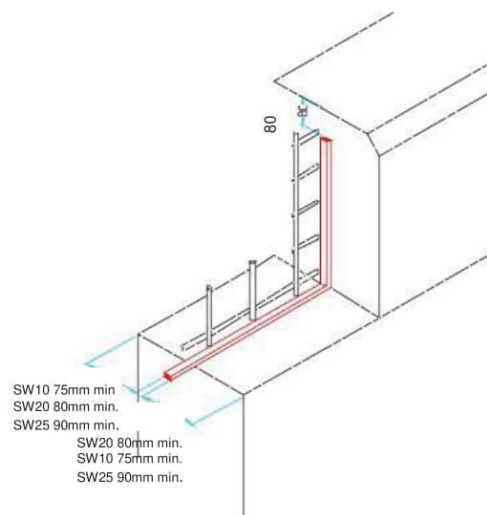
Deesa SWB Pro 20 SW may be fixed with Deesa SWB Pro 20 SW Adhesive on smooth surfaces, but Deesa SWB Pro 20 SWX Adhesive should be used where concrete is rough. In both instances the bead diameter of the adhesive should be a minimum of 12mm.

Deesa SWB Pro 20 SW must not be immersed in water prior to concrete placement, however, Deesa SWB Pro 20 SW20 can tolerate upto 3

SW Details with 2 cages of reinforcement



SW Details with 1 cage of reinforcement placed centrally



DEESA SWB PRO 20



Storage

Deesa SWB Pro 20 SW10

Shelf life: 12 months

Store in original unopened cartridges or cartons
in cool, dry conditions, away from sunlight

Deesa SWB Pro 20 SW20

Shelf life: 12 months

Store in original unopened cartridges or cartons
in cool, dry conditions, away from sunlight

Deesa SWB Pro 20 SW25

Shelf life: 12 months

Store in original unopened cartridges or cartons
in cool, dry conditions, away from sunlight

Additional information

Ancillary materials

Deesa SWB Pro 20

Form: Elastomeric water
swellable paste

Colour: Black

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

Cure rate: 3mm in 24 hours

Volume swell ratio: Upto 500%

Concrete pour: 2 to 8 hours

Deesa SWB Pro 20 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.

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

Precautions Health and safety

Deesa SWB Pro 20 SW10

There are no known health hazards associated with
Deesa SWB Pro 20 SW10 in normal use.

Deesa SWB Pro 20 SW20

There are no known health hazards associated with
Deesa SWB Pro 20 SW20 in normal use.

Deesa SWB Pro 20 SW25

There are no known health hazards associated with
Deesa SWB Pro 20 SW25 in normal use.



Certified From:



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