

Estopper Hydroswell S47

Swellable Hydrophillic Waterstop

Description

Estopper Hydroswell S47 is a unique sealing compound which expands in a controlled fashion when exposed to moisture, forming a compression seal in concrete joints. **Estopper Hydroswell S47** is ideal for use in horizontal and vertical construction joints for cast in-situ concrete structures.

Estopper Hydroswell S47 is manufactured utilizing a specialized mixing process which encapsulates hydrophillic materials into a rubber based creating a controlled, moisture activated seal. This product has the structural integrity of a rubber-based sealant, the features of a butyl sealant, as well as the ability to expand to create a self-healing joint material.

Estopper Hydroswell S47 has been tested in accordance to ASTM D471:2016a for Expansion Volume Rate, ASTM D5385 for Water Head Pressure and complied with the specification in this data sheet.

Uses

Typical applications for **Estopper Hydroswell S47** include:

- Tunnels /Retaining walls/Basements
- Underground structures
- Pits/Box culverts
- New to old concrete manholes
- Poured in-situ construction joints
- Above and below grade precast panels

Advantages

- Excellent for applications to rough concrete surfaces.
- Limited loss of integrity of waterstop.
- Allows concrete to gain strength before expansion.
- For use in horizontal and vertical construction joints.
- Excellent adhesion to **Estopper Hydroswell S47** primer/adhesive.
- Can be bedded into wet concrete.
- No compaction or displacement problems.
- Unaffected by repeated wet and dry cycles.
- Has the ability to bond to both concrete surfaces.
- No on-site welding required as with PVC waterstops.
- Very easy to handle and install.
- No split forming required.
- Non toxic and requires no special handling.

Standard Compliance

- **ASTM D471:2016a**
- **ASTM D5385**
- **ASTM D2240**
- **ASTM D638**

Physical Properties

Colour	Black
Size	25mm x 19mm
Service Temperature Range	-30°C to 50°C
Water Head Pressure ASTM D5385	Tested to an average 61m
Expansion Volume Rate ASTM D471:2016a	>200%
Shore A Hardness ASTM D2240	>30
Tensile Strength ASTM D638	>0.3MPa
Elongation at Break ASTM D638	>150%

Application Instructions

Surface Preparation

Estopper Hydroswell S47 is to be adhered to the first pour of concrete with **Estopper Hydrosweell S47 Adhesive**. A clean, dry surface, free from dust, debris etc. is required.

Estopper Hydroswell S47 requires a **minimum 50mm concrete cover** from the outside edge.

Brush off any dust or debris from the surface where the **Estopper Hydroswell S47** is to be applied. Brush a coat of **Estopper Hydroswell S47 Adhesive** at 30mm wide onto the concrete surface and one coat to the surface of the **Estopper Hydroswell S47**. Wait for both surfaces to be touched dry before applying the **Estopper Hydroswell S47**.

Application

With the use of your thumbs or heel of your hand, firmly press a continuous bead of **Estopper Hydroswell S47** into position, making sure you get full contact with the adhesive on the concrete surface. Do not stretch the **Estopper Hydroswell S47** waterstop when applying it into position. There must be no visible gaps under the **Estopper Hydroswell S47**.

The protective paper layer cover on the **Estopper Hydroswell S47** can be removed anytime prior to the second pour of concrete taking place. Placement of the second pour of concrete can be applied once the **Estopper Hydroswell S47 Adhesive** has dried. Upon pouring, make sure the concrete is properly compacted and vibrated around the **Estopper Hydroswell S47**.

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If **Estopper Hydrowell S47** has been exposed to water/moisture prior to the second pour taking place, check for pre-expansion. If the product has pre-expanded, then remove that section and replace with a new length of **Estopper Hydrowell S47**.

For vertical joints and overhead applications, it may be necessary to also secure the **Estopper Hydrowell S47** with nails, placed approximately every 250mm apart. This is usually only required as extra security if you need to pour concrete prior to the **Estopper Hydrowell S47 Adhesive** drying completely.

Packing & Size

Estopper Hydrowell S47	25mm x 19mm x 5m roll (6 rolls per carton)
Estopper Hydrowell S47 Adhesive	1 Litre tin

Coverage

Estopper Hydrowell S47 Adhesive	20 – 30 metres per litre
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Technical Support

Denka offers a technical support package to specifiers, end-users and contractors, as well as on site technical assistance.

Storage

Estopper Hydrowell S47 should be stored in packaging in dry conditions under ambient room temperature. The product will have shelf life of 5 years. If stored in extreme heat locations, the shelf life may be reduced.

Additional Information

Denka Construction Solutions Malaysia Sdn Bhd offers a wide range of complementary products, which includes waterstops, waterproofing products, grouts, anchors, specialized flooring products. In addition, a wide range of products formulated for repair and refurbishment of spalled concrete are available.



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