

PERMASEAL WATERSTOP

Hydrophilic Swellable Waterproofing Strip for Construction Joint

- Sealing joints between tunnel segments
- sealing joints between concrete precast elements
- Horizontal/ Vertical joints & pipe penetrations
- sealing concrete to steel joints
- sealing construction joints in fresh concrete



PERMA- WATERSTOPS

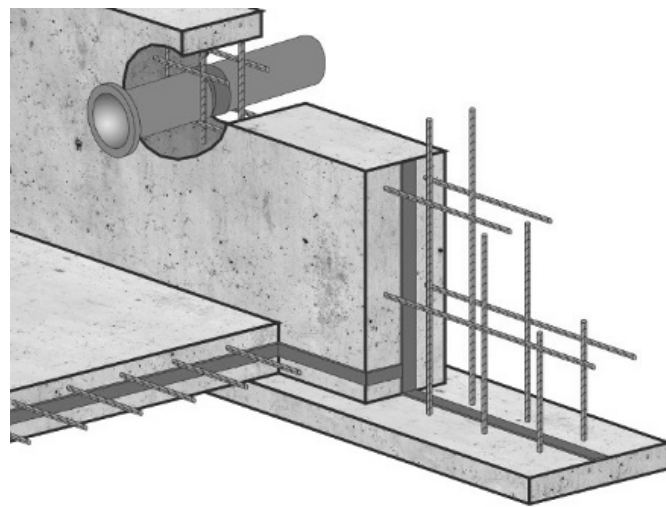
DATA SHEET

Product Description

Permaseal Waterstop is a non bentonite hydrophilic Thermoplastic Elastomer waterproofing strip made from a combination of an elastomer and a hydrophilic resin.

When confined between a construction joint, and in the presence of water it will swell to over 4 times its original volume and build up pressure inside the joint to seal against water leaks.

The composition of the Permaseal Waterstop ensure the initial swelling is delayed and makes the Permaseal Waterstop safe to install in insitu concrete applications and to avoid premature swelling in wet concrete.



Typical Uses

- Sealing joints between tunnel segments.
- Sealing joints between concrete precast elements,
- Horizontal / vertical construction joints & pipe penetrations
- Sealing concrete to steel joints.
- Sealing construction joint in fresh concrete ensuring sufficient coverage to all edges (80mm min in all directions)

Features & Benefits

- Suitable for use in salt water environments.
- Permaseal Waterstop swells by approx. 450%
- Composition delays initial swelling allowing installing to insitu concrete applications.
- Easy installation, nailing or gluing with Perma Adhesive.
- Has a good all-around chemical resistance
- Good impact resistance.
- Retains its form in multiple dry and wet cycles

Technical Data

PERMASEAL WATERSTOP	
Material	
Tensile Strength	13Kgf/cm
Density	1.25 gm / cm
Hardness	40-50 (Shore A)
Elongation Break	300% min
Swelling rate	450% in water 175% in salt water
Service Temperature	-30 to 60
Roll Size	20mm x 10mm x 5m

Surface Preparation

The surface of the concrete should be clean, correctly compacted and uniform. Surface must be free of oil, dust and laitance, etc.

Installing by Nailing

Nail application is only recommended in insitu concrete applications. For precast elements and segment applications, it is recommended to use glue due to concrete hardness.

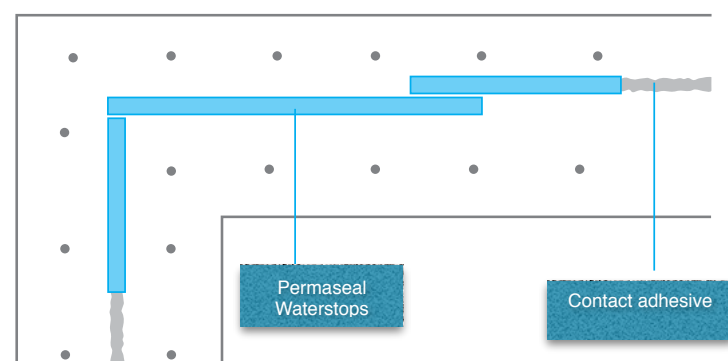
Permaseal Waterstop should only be applied to level and smooth surface, if possible, make a rebate of the same width as the selected Permaseal Waterstop profile during concrete pour using a wooden or a metal strip.

When nailing the strip into place, use nails with washers of diam. smaller than the width of the Permaseal Waterstop. Ensure min 4 nails per Linear meter.

Slight Tension should be applied to the waterproofing strip during nailing to assure complete contact with joint surface. Do not stretch the strip during application of this tension.

The installer must ensure complete contact of the strip with the joint surface during nailing, pull the strip to ensure the correct tension without over stretching while nailing.

Permaseal waterstop should be placed next to each other with an overlap at least 100mm. While placing the concrete be careful not to damage the waterstop during compaction vibrating.



Application by Glueing

Permaseal Waterstop when applied to precast elements are always on the outside face of the compression seal as closely inwards as possible.

Remove dust, dirt and loose debris by brushing firmly, level rough and irregular surfaces with Permaseal Waterstop Sealant.

It is recommended to unroll and pre-cut the Permaseal Waterstop to required length. Apply a layer of Adhesive sealant with sealant gun on to the concrete surface.

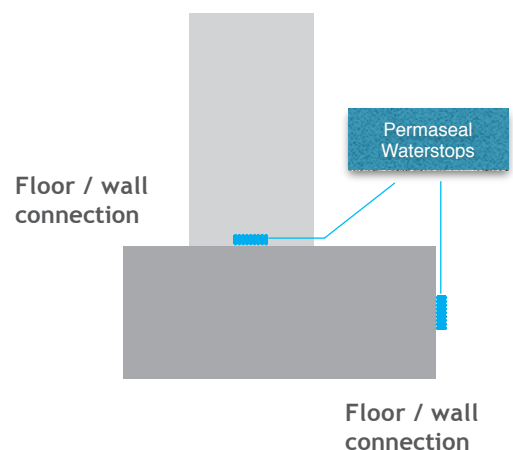
Unroll the Permaseal Waterstop strip and press firmly into the adhesive. Wait until the adhesive is dry before pouring concrete (concrete cover of 100mm at all sides should always be maintained).

Rolls ends are simply butted together to assure a waterproof seal. Do not install by overlapping.

The strip needs to be in contact with the joint over its full length.

Storage Conditions

Permaseal Waterstops should be stored in dry conditions and protect against mechanical damage.



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