

# ENESEAL SW45

Swellable waterstop for in-situ concrete

## DESCRIPTION

**ENESEAL SW45** is a hydrophilic waterstop based on polymer technology that is used in construction joints of water retaining or excluding structures, particularly where traditional PVC waterstops are difficult to apply. It works by slowly swelling on contact with water to form a tight seal against concrete surfaces, effectively stopping the flow of water through the joint.

## USAGES

- Typically used in construction joints in water retaining or excluding structures such as water tanks, swimming pools, pumping chambers, reservoirs, tunnels, basement, culverts etc.
- New-old concrete joints

## ADVANTAGES

- Easy to install by adhesive bonding
- Solves detailing problems in conjunction with other kind of 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 join shapes
- Provides effective combination of waterstops maintaining network continuity

## TECHNICAL DATA

### ENESEAL SW45

*Service Temperature*

### Typical values

-30°C – 50°C

*Shore A Hardness  
(ASTM D2240)*

40 – 50

*Elongation  
(NF ISO 37-2012)*

> 450%

*Expansion volume rate  
(KS M 6518)*

≥ 300%

*Volume change in saline  
water  
(ASTM D470-98)*

> 50%

*Color*

Blue

### ENESEAL SW45

*ENESEAL PRIME S*

### Coverage

20mm x 10mm x 10LM

## USAGE INSTRUCTIONS

### 1. Surface preparation

Long term durability and function can only be achieved with good preparation to ensure that water cannot bypass the water-stop.

It is recommended that concrete substrates have a minimum compressive strength of 20 N/mm<sup>2</sup>, and at least 75 mm of concrete cover in all directions of the hydrophilic water-stop.

Ensure the concrete surfaces where the water-stop will be places are smooth, clean and free from contamination such as dust, oil, grease, organic growth & release agents.

For fresh concrete we recommended forming a groove in the middle of the joint using a suitable timber strip.

After the concrete has hardened, remove the strip to reveal the groove in which the hydrophilic waterstop can sit with minimal preparation.

Existing irregular surfaces can be repaired using **PIOMORTAR FC** prior to the application of **ENESEAL SW45**.

### 2. Priming

No priming is required for this product; however, we do recommend bedding **ENESEAL SW45** onto **ENEBOND FX** contact adhesive.

### 3. Application

It is highly recommended to also apply a thin layer of **ENEBOND FX** to the side of **ENESEAL SW45** which will bond to concrete. By brush, apply a continuous bed of **ENEBOND FX** onto the prepared substrate along the proposed line of the water-stop.

Maneuver the **ENESEAL SW45** to its final position within a few minutes of bonding and remove excess material before it dries. Use nail or shot fire the hydrophilic waterstop to the concrete substrate.

At the corners and intersections, simply butt join the waterstop together ensuring tight joint between the profiles. No hot welding is required for hydrophilic waterstops.

It is essential that both the hydrophilic waterstop & adhesive are kept dry prior to pouring concrete, otherwise expansion of the waterstop will take place.

## STORAGE & SHELF LIFE

**ENESEAL SW45** shall be stored in its sealed container under dry and shaded place in a temperature from 10°C - 35 °C, shelf life of the material is 12-months.

## PACKAGING

**ENESEAL SW45** is supplied in 20mm x 10mm x 10 LM roll.

## HEALTH & SAFETY

Always use appropriate PPE including gloves, goggles and a barrier cream to avoid contact with skin and eyes. If contact with skin or eyes occurs, immediately wash with plenty of clean water and seek medical advice.

If swallowed seek medical attention immediately.

Do not induce vomiting. Avoid inhalation and ensure adequate ventilation or suitable respiratory equipment if working in confined spaces.

Do not expose products to fire or naked flames under any circumstances.

## TECHNICAL SERVICE

The technical service department of Arkaz is available to assist in the correct and best use of our products, these resources and advice are at your disposal entirely without obligation.

Please contact:  
concretedoctor@arkaz.com

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