

## TECHNICAL DATA SHEET

### EUROSWELL WATERSTOP

#### DESCRIPTION

A flexible hydrophilic natural rubber & bentonite waterstop for construction joints and sealing precast elements that expands on contact with water. The bentonite in Euroswell Waterstop consists of tightly packed charged microscopic platelets, between and within these platelets there is a separation of charges positive and negative. Water molecules are attracted to the unique structure of positive and negative charges and wedge themselves between the platelets causing them to separate & swell. The hydrated bentonite forms a seal preventing further migration of water. As hydrostatic pressure is increased the platelets compact forming a tighter seal.

#### USES & ADVANTAGES

Euroswell Waterstop is used to stop water infiltration through both vertical and horizontal non-moving construction joints, irregular surfaces and around penetrations through concrete. It is not intended as an expansion joint sealant. It is designed to replace conventional waterstops in construction joints. The sodium bentonite in Euroswell Waterstop is the key to its success. Bentonite swells and is released (free expansion) when in contact with water blocking pores, capillaries, minor cracks & other paths for water forming a permanent impermeable barrier.

#### Typical areas of application include: -

Below and above grade structures such as water tanks, waste water treatment plants, tunnels, basements, lift shafts, underground stations, subway systems, manholes, culverts, reservoirs, potable water treatment plants, swimming pools, canals etc.

Advantages include: -

- Lightweight flexible coils easy to install.
- Eliminates seam welding & split forming associated with PVC/rubber waterbars.
- Butt end joining, continuous waterstop.
- Withstands hydrostatic water head up to 70 metres.
- Forms a positive seal, sealing cracks & small voids.
- May use in potable water tanks. Non-toxic.
- Can apply to irregular concrete surfaces. No need to level.
- Compressible and malleable allowing for good contact in precast applications.
- Unaffected by repeated wetting & drying cycles.
- Does not deteriorate lasts life of structure.
- Fast installation.

- Permanently active system.
- Self-healing.

### TYPICAL PROPERTIES

Complies to REACH Regulations as per Article 33(1), EC 1907/2006

Hydrostatic Head Resistance:	>70 m
S.G.:	1.6-1.7 ASTM D-71
Wet / Dry Cycling:	No effect
Service Temperatures:	-40°C to 80°C
Elongation:	>300%
Colour:	Black
Adhesion to Clean Dry Concrete:	Excellent
Penetration Cone:	40±5 ASTM D-217
Typical Expansion:	>300%
Volatile Matter:	1% max. ASTM D-6
Application Temp. Range:	-10oF to 125oF (-23oC to 52oC)
Service Temp. Range:	-30oF to 180oF (-34oC to 82oC)

*Note\**

- Swelling rates 100% indicates original size.

Expansion is related to the quality of water, pH, temperatures, age of material and storage conditions. Expansion rates vary in salt or contaminated water consult the manufacturer before use. In salt water use Euroswell Waterstop S. Expansion rate at 23°C in potable water at 28 days. Specification shown may be changed without notice to improve the product. Properties are typical under laboratory conditions and do not constitute a specification. Field trials are recommended. Provide at least 75 mm. concrete cover. Increase cover where light weight or low strength concrete is being used. Do not use in expansion joints.

### INSTALLATION OF EUROSHELL WATERSTOP

Surface Preparation. The surface should be clean, free of all curing compounds, mould oils, and dry with all dirt, aggregate, rust, debris or standing water removed. Surface preparation/cleaning by water blasting

## **HYDROPHILIC CONSTRUCTION JOINT WATERSTOP**

### **General Installation Instructions**

Apply by brush Euroswell Waterstop adhesive along the concrete by the width of Euro Waterstop. Whilst still tacky (within 10-15 minutes) apply the Euroswell Waterstop. Remove the release paper and press the Euroswell Waterstop firmly to the surface for several seconds. At the highest coil end on vertical sections pay particular attention. If the adhesive has dried out reapply to the surface. Mechanical fasteners may be used in conjunction with adhesive. Tightly butt end together to form a continuous waterstop. Do not prehydrate or submerge in water. If severe ground water chemicals or salts exist consult with Hoylake Technology Pte Ltd. Euro Waterstop is not self-adhering.

## **HYDROPHILIC CONSTRUCTION JOINT WATERSTOP**

### **SPECIFICATION**

The waterstop to be used in all construction joints shall be Euroswell Waterstop or equal approved material. The waterstop shall consist of sodium bentonite in natural rubber and expand by at least 300%. It shall be capable of being butt ended, shall not be overlapped nor create a packing effect in the concrete, it shall be pliable so that it follows the contours of the concrete and may be installed to all penetrations. The material will form a positive seal, and a continuous waterstop withstanding hydrostatic pressure up to 70 m.

### **STORAGE & SHELF LIFE**

Store dry in original boxes undercover protected from direct sunlight and rain. Do not store at very high temperatures for long periods of time. The shelf life is at least 6 months when stored below 30°C.

### **PACKAGING & SIZES**

Approximate size:- 25 x

20 mm. x 5.0 LM

20 x 15 mm. x 6.0 LM

20 x 10 mm. x 9.0 LM

6 rolls per carton. Other sizes available on request.

Primer / Adhesive: 5 litre plastic pails

1 litre per 25-35 LM of standard profile 25x20 mm.

Delay Coating: 5 litre plastic pails

1 litre per 10-12 LM of standard profile 25x20 mm.

### **HEALTH & SAFETY**

There are no known hazards associated with Euroswell Waterstop during normal use. Refer to product material safety data sheet.

### **LIMITATIONS**

Euroswell Waterstop should only be used in applications where ground water is not contaminated. In areas where saltwater or organic contaminated water is expected contact Hoylake Technology Pte Ltd. for recommendations. Euroswell Waterstop should be used in areas fully confined in concrete by a minimum of 75 mm cover. To achieve success the installation instructions must be followed. Any hydrated material allow to dry before placement of concrete.

### **QUALITY ASSURANCE**

ISO 9001: 2008 verified by TUV Nord.

### **COMPLIANCE**

In compliance with the directive 89/106/EEC of the council of European communities of 21 December 1988.