

# BPA-CEMSWELL "SALT WATER"

## HYDROPHILIC SWELLING RUBBER

Expanding joint sealing profile for the sealing of joints in prefabricated concrete elements

### PRODUCT DESCRIPTION

BPA-CEMSwell "Salt Water" is an expanding joint sealing profile that swells upon contact with (salt) water, whilst remaining dimensionally stable.

### APPLICATION AREAS

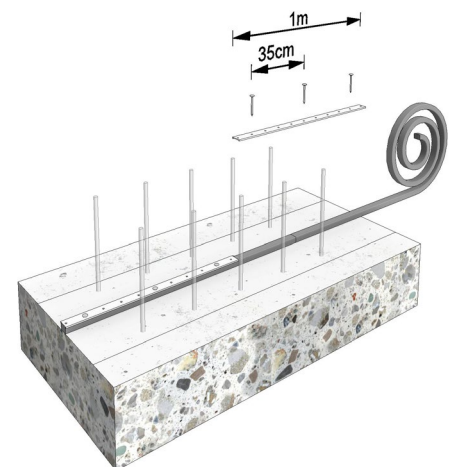
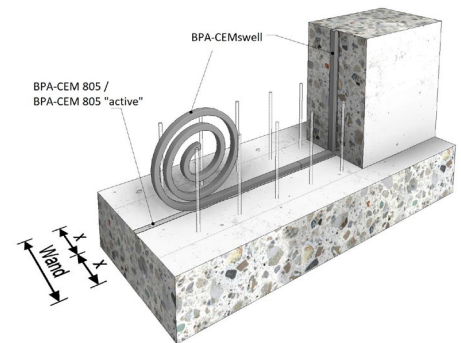
BPA-CEMSwell "Salt Water" is a new generation expanding rubber sealing material designed for sealing of joints in tunnels and shafts. Shield-driven tunnels are common features of such construction works as subways, water supply and sewer systems in cities, tunnels, cable lying, etc. Recent trends in shield-driven tunnels have been towards new applications, increase and decrease in section size, and also construction at greater depths or under the seabed where measures against high-pressure water are of vital importance. BPA-CEMSwell "Salt Water" is specifically developed to meet these most difficult challenges.

### HOW DOES HYDROPHILIC SWELLING RUBBER BPA-CEMSWELL "SALT WATER" WORK?

On contact with (salt) water BPA-CEMSwell "Salt Water" is capable of swelling up to 2.2 times its own volume and under conditions of confinement will mould itself to the surrounding surfaces producing a water-tight seal. The sealing effect is attained through the developing swelling pressure even if the surrounding surfaces are rough and the joint gaps to be filled are of an uneven size. BPA-CEMSwell "Salt Water" is capable of performing multiple swelling cycles.

### CHARACTERISTICS AND ADVANTAGES

- ⊕ BPA-CEMSwell "Salt Water" is an extruded PE-based alloy made from rubber, hydrophilic resin, polyethylene, silicon and special admixtures
- ⊕ Suitable for the use in both vertical and horizontal joints in prefabricated elements
- ⊕ BPA-CEMSwell "Salt Water" has been developed for the successful sealing of joints up to 5 bar water pressure (50 m water column).
- ⊕ BPA-CEMSwell "Salt Water" is available in various standard sizes but also can be extruded in any user-defined shape and size.
- ⊕ In its round profile, BPA-CEMSwell "Salt Water" can be used to successfully seal tie-bolt holes.
- ⊕ Swelling volume more than 200%
- ⊕ Easy to install
- ⊕ Approved for the use in waste water, slurry and animal manure
- ⊕ Available in various standard sizes



**PRODUCT DATA**

	<b>Hydrophilic Swelling Rubber BPA-CEMswell "Salt Water"</b>
<b>Storage</b>	Shelf life 3 years when stored in dry conditions, protected from direct sunlight, frost and water
<b>Storage temperature</b>	+10 °C up to +30 °C
<b>Application temperature</b>	-20 °C up to +50 °C
<b>Application surface</b>	Sustainable, flat, clean, dry and free of all surface contaminants
<b>Intended use</b>	Working joints in concrete walls and foundations, tunnel walls and basement, steel and concrete piping, prefabricated element, etc.
<b>Installation accessories</b>	BPA-CEM 805, BPA-CEM 805 "active", Mounting rail / grid, etc.
<b>System accessories</b>	CEMflex VB – steel plate; DualProof – fully bonded
<b>Joint areas</b>	Min. lateral overlap of 50 mm or ends are abutted and firmly pressed together

**TECHNICAL DATA**

<b>Working material:</b>	PE
<b>Colour:</b>	Light blue
<b>Shore A:</b>	40
<b>Elongation at break:</b>	600%
<b>Tensile strenght:</b>	3.5 MPa
<b>Specific weight:</b>	1,20 g/cm <sup>3</sup>
<b>Volume of swelling:</b>	More than 200%
<b>Concrete cover:</b>	Min. 8 to 10 cm

**ADDITIONAL INFORMATION**

**Surface preparation**

The surface onto which CEMswell is to be placed should be sustainable, flat, clean, dry and free of all surface contaminants.

**In Service**

Service temperature: -20° C to +50° C

The above mentioned temperatures constitute the generally valid area in which no additional measures need to be taken during application.



### **Environment and health**

This product does not represent a hazardous substance within the meaning of the EU Hazardous Substances Regulation. A safety data sheet for transport, placing on the market and use is available on the request.

### **Dangers and Safety**

The essential safety, toxicological, physical and ecological data for the handling of BPA-CEMSwell can be taken from the product-specific safety data sheets.

### **Data**

All technical data stated in this product data sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

### **Legal advice**

All above mentioned Information concerning BPA-products, especially any recommendations and advices relating to the application and use of BPA products are given in good faith based on BPA's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with BPA's recommendations.

In practice, the differences in materials, actual site conditions and other factors outside are such that no warranty nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered.

The user of the product must test the product's suitability for the intended application and purpose before proceeding with the full application of the products. BPA reserves the right to change the properties of its products without notice. Users must always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request. All sales of BPA are subject to our current terms and conditions.

### **Local Restrictions**

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local product data sheet for the exact description of the application fields.

