



# LEAK-SEAL & WATER STOP CONCRETE & CRACK INJECTION SYSTEMS

How to Choose Products, Packers, Pumps

SealBoss® 1-2-3 at 45 Degree Crack Injection™

SealBoss® Curtain & Bladder Injection

SealBoss® Pumps, Packers, Injection Tube



**32**  
**YEARS** 1988-2020

## Choosing Your Products:

Choosing the product with the correct properties for the job is the first step to a successful and long lasting leak-seal and crack injection application. Material with the appropriate physical properties simplifies the application and provides for long term durability. SealBoss offers a wide selection of hydrophilic and hydrophobic products with varying degrees of properties such as viscosity, expansion rate, reaction time, flexibility, density and hardness. Please contact your SealBoss representative for more info.

### Hydrophobic & Hydrophilic Product Groups

**SealBoss 1510/1570/1570LV/1500 Water Stop Foam** grouts are hydroactive **hydrophobic** products that share common properties. Water/moisture initiates the reaction only, but the cured product is insensitive to moisture and of a constant volume. Since water is not a component of the foam structure, the cured material is essentially not effected by water or dryness and does not shrink or swell. Products are not effected by freeze/thaw and wet/dry cycles. **SealBoss 1640 Foam & SealBoss 1403 PUR Resin** are **hydrophobic products** that do not require water to react.

**SealBoss FlexGel & SealBoss 2400 Acrylate (Acrylic) Gel** are hydrophilic products. Water/moisture initiates reaction and the product is capable of absorbing and incorporating water post cure, thereby swelling and forming a waterproofing flexible gel or foam. Hydrophilic products are recommended for applications in permanently moist environments, curtain/bladder injection, and capillary injection.

### Viscosity

**SealBoss 1510/1570/1500 Water Stop Foams & Flexgel** are of low viscosity for good penetration into concrete cracks and joints. For hairline cracks, capillary fissures and tight cold joints we provide super low viscosity products such as **SealBoss 1570LV Water Stop Foam, SealBoss 1403 PUR Resin, SealBoss 2400 Acrylate (Acrylic) Gel**.

### Accelerator Adjustable Hydro Active Expansion & Reaction Time

The reaction times and expansion rates of **SealBoss 1510/1570/1570LV Water Stop Foams** are **adjustable**



by adding a specific amount of SealBoss accelerator. The gel times of **SealBoss 1403 PUR Resin & SealBoss 2400 Acrylate (Acrylic) Gel** are also adjustable.

The reaction time and expansion rate of a foam determine the water stop and penetration properties of the product. Faster reaction times and expansion benefit water cut-off properties, slower reaction times enhance product penetration in the substrate.

Water-reactive polyurethane grouts expand on contact with water by the resulting CO2 gas. The foam expansion creates a **compression seal** which supports the sealing properties of the injection grout. Rapid expansion helps to cut-off high-volume active water leaks and benefits curtain/bladder grouting. The expansion rate of a foam determines material consumption, cell structure and density of the cured product. It should be considered that expanding foams can create a significant amount of pressures. Our best-selling, industry standard **SealBoss 1510 Water Stop Foam**, can rapidly expand between 5 to 50 times (50X) of free rise product volume when catalyzed accordingly.

### Flexibility & Density

For most injections in joints, cracks and some curtain/bladder wall grouting that do not experience much movement, semi flexible standard products with high expansion rates and higher compressive strengths such as **SealBoss 1510 Water Stop Foam, SealBoss 1500 2-Component Water Stop Foam** are used. Structures exposed to thermal expansion and contraction or dynamic loading resulting in increased movement may require a flexible formulation grout such as **SealBoss 1570/1570LV Water Stop Foam, SealBoss 1403 PUR Resin or SealBoss Flexgel**. **SealBoss 1403 PUR Resin** is also recommended as follow-up and final seal injection in critical foam injection areas.

Good product density, complete penetration and adequate product consumption make for a successful leak-seal injection. Injection pressures must be high enough to provide for good material travel, proper penetration and density. We recommended to always monitor injection pressures and material flow closely. When done correctly, the high density injection material will form a compression seal and provide for a or a long lasting application.

# SealBoss®

## Choosing Your Packers:



### Professional Packer & Injection Accessories

Code	Size	
<b>S-TYPE</b>		
13-60S	1/2x3 in	13x70 mm
16-60S	5/8x3 in	16x70 mm
13-115S	1/2x4 in	13x100 mm
13-175S	1/2x6 in	13x150 mm
16-115S	5/8x4 in	16x100 mm
<b>B-TYPE</b>		
13-70B	1/2x3 in	13x70 mm
16-70B	5/8x3 in	16x70 mm
10-60B	3/8x2.5 in	10x60 mm
8-50B	5/16x2 in	8x50 mm
6-46B	1/4x1.8 in	6x46 mm
13-100B	1/2x4 in	13x100 mm
16-100B	5/8x4 in	16x100 mm
13-150B	1/2x6 in	13x150 mm
16-150B	5/8x6 in	8x150 mm
13-200B	1/2x8 in	13x200 mm
16-200B	5/8x8 in	8x200 mm
<b>ZINC-TYPE</b>		
13-70ZI	1/2x3 in	13x70 mm
<b>PLASTIC BUTTON-TYPE</b>		
5/8BPB	5/8x4 in	16x100 mm
<b>HAMMER-IN PLASTIC PACKERS</b>		
HAM3/8	3/8x3 in	10x70 mm
<b>SURFACE EPOXY PORTS</b>		
SPCORNER	1/4 in	Hole: 10 mm
HAM1/2-EP	1/2 in	Port: 10 mm
SPEPTRI	1/4 in	10 mm



SealBoss® Leak Seal & Water Stop Crack Injection Guideline