

SealBoss® 1510 PU Injection Grout / 15X Accelerator

Versatile, Water Activated,
Polyurethane Water Stop
& Seal Injection Foam Grout

RANGE OF APPLICATION

Injection grout for infiltrating & gushing water:

- Defective Concrete (Cracked or Honeycombed)
- Concrete Construction Joints & Cracks
- Limestone
- Brick Construction
- Pipe Intrusions
- Waste Water Tanks
- Water Reservoirs
- Sewers, Manholes, Utility Boxes, etc.
- Tunnels, Dams
- Soil Stabilization
- Elevator Pit Waterproofing

TYPE OF MATERIAL

SealBoss® 1510 PU Injection Grout is a polyurethane based, hydrophobic water (hydro) activated water cut-off grout and foam seal grout based on a MDI (methylene-diphenyl-isocyanate) polyurethane. The resin is 100% solvent free and 100% solids. The gel-time of the product is adjustable by the mandatory adding of a certain percentage of **15x Accelerator**.

Upon contact with water **1510 PU Injection Grout** reacts to a semi flexible foam while expanding its volume 30 to 40 times. The cured material is 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. The reacted material does not shrink or swell.

Depending on the amount of accelerator added and the pressure of injection, **1510 PU Injection Grout** reacts to a very dense, closed cell, semi rigid material or a more open cell, semi flexible product. For best waterproofing results the closed cell structure is desired.

1510 PU Injection Grout is designed for cutting off gushing water of high pressure and speed. Due to the low viscosity of the material, **1510 PU Injection Grout** offers superior penetration in hairline crack injection. The product is also suitable for the filling of larger spaces, cracks and honeycombing in stone or concrete structures. The product can be applied as a non-shrink, high strength soil stabilization grout when used with very little accelerator. The moisture content of the soil must be sufficient to ensure reaction. To achieve most satisfying and permanent results in certain applications, a combination of **1510 PU Injection Grout** with other systems of our product line may be advised. Ask your **SealBoss** technician for details.

PROCESSING

1510 PU Injection Grout and the **15X Accelerator** are supplied separately to allow adjustment of gel-time and to provide a long shelf life. It is mandatory to add **15X Accelerator** to ensure complete reaction as designed. A higher percentage of Accelerator added will increase reactive speed, expansion volume and lower the density of the product accordingly. Since the end product is of cellular structure, a higher density is favoured for best waterproofing properties.

Recommended mix ratios are between 5% and 10% of Accelerator added. In situations of high water flow rates and /or low temperatures, ratios may be increased to 20%.

For soil stabilization ratios may be lowered to less than 5%.

Examples: In applications of high pressure water-intrusions, the system will react aggressively on contact with water when catalyzed at 10% or more. A slightly catalyzed product at about 2% on the other hand assures good penetration results in very fine capillary crack injection and for purposes of extended reach of product in the injected structure.

The accelerator system offers a very flexible bandwidth of reactive properties, gel-time and expansion rate which make this product extremely versatile for many applications.

Plan ahead: Observe temperature and humidity of the environment, since both determine the pot-life of the premixed batch. Do not mix more material than the amount that will be pumped within reasonable time. Rule of thumb: High temperatures and high humidity - less accelerator.

1510 PU Injection Grout reacts with the moisture in the structure and does not need large amounts of water to react. Simultaneous injection of water is typically not necessary. If the area of application seems to be completely dry, pre-injection of water may be recommended.

Caution: This product is moisture activated. It is essential for all equipment to be dry. Avoid any moisture contact with the mixture to prevent premature reaction of the product. If reaction of the batch occurs while pumping, immediately shut down the machine and flush with a cleaner to avoid built up and clogging of the equipment.

MAINTENANCE OF EQUIPMENT

Remove all excess product and any smears. Tools and mixing equipment must be cleaned immediately after use. **R70 Pump Flush** is good to your equipment and should always be used. For best results please follow our recommendations. **First Step** is conditional - Omit if in conflict with regulations on the jobsite or the equipment you use: Flush first with a very small amount of solvent (not supplied by us) to cut remaining material. Caution: Xylol, Toluol, Acetone, M.E.K. are hazardous, combustible, aggressive towards the environment, equipment, seals and hoses. Immediately follow second step. **Second Step:** Flush with **R70 Pump Flush** circulate cleaner through pump and hoses for several minutes at higher flow rates. **R70 Pump Flush** is a solvent free, non-flammable cleaner, lubricator and pump and hose conditioner. The product ships without hazard label.

PRECAUTION

Protect your health! While working with this material, safety goggles, gloves and safety clothing must be worn at all times. While injecting, a full face shield is strongly recommended. Spills and blow-outs do happen! Protect yourself and others on the jobsite. Consider property in proximity of the application area to prevent loss or damage. Protect your jobsite from unauthorized persons. Store all materials and equipment safely and out of reach of children! Observe container labels, MSDS, and instructions in the Product Catalog before using the product and equipment. In case one of the components comes in contact with the skin, wash thoroughly with soap and water. Provide adequate ventilation in volume and pattern in working area. Further protection: emergency showers and eyewash stations.

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TECHNICAL DATA

	1510 PU Injection Grout	15X Accelerator	
Appearance	Brown	Clear	
Solids	100%	100%	ASTM D 1010
Density, lb/gal - g/ml	1.12	0.93	ASTM D 3800-79
Boiling Point, C / F	205C/400F	170/338F	
Flash Point, C / F	180C/356F	125C/225F	ASTM D 93-85
Viscosity, cps	160-250	20	ASTM D 2196
Mixing Ratio by Volume (2%-10% accelerator)	50-10 parts	1part	
Solubility in Water	not		
Packaging	1 Gal 5 Gal 55 Gal	0.1 Gal 0.5 Gal	
Storage	Good storage stability for unopened containers at 15 - 30 C 58 - 85 F in dry, sun free indoors environment 3 years shelf life.		

Reaction

Induction Time, 20C/68F	30 sec (10% 15X added)
Gel time, 20C/68F	70 sec (10% 15xs added)
Induction Time, 20C/68F	15 sec (15% 15X added)
Gel time, 20C/68F	50 sec (15% 15xs added)

Properties for Cured

Physical properties for foam products may vary based on water and accelerator percentages and conditions during reaction

Expansion, %	600-4000 (6-40 Times) based on Accelerator concentration
Elongation, %	10-20 ASTM D 638
No ASTM D1042 Shrinkage	ASTM D1042
Tensile Strength	65 psi ASTM D 638 >100 psi (>2% Accelerator, product reacted under pressure)
Shear Strength	>15 psi ASTM C 273
Unconfined Compressive	
Shrinkage	<4% ASTM D 1042
Strength (Sand Filled)	1550 psi
Corrosiveness	Non-Corrosive
Appearance	Yellowish-White Polyurethane Foam
Toxicity	Essentially Non-Toxic in Cured Form, MDI Based Resistance to Chemicals Resistant to Most Organic Solvents, Mild Acids, Alkali and Micro Organisms



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