

# SealBoss®

## 4040 LV Epoxy Resin



Product Data Sheet

### SealBoss® 4040 Applications

- Structural Concrete Crack Injection
- Welding Cracked Concrete Segments
- Delaminated Slab Repair
- Natural Rock, Masonry, Concrete, Wood
- Gravity Feed or Pressure Injection of Cracks in Concrete, Masonry, Rock, Wood, etc.
- Seal Interior Slabs and Exterior Above-Grade Slabs

### High Strength, High-Modulus, Low-Viscosity, Epoxy Injection/Grouting/Sealing/Binder Adhesive

#### SealBoss® 4040 Advantages

- SealBoss Product-Pump-Packer System Solution
- Proven, High Strength, Low Viscosity Product
- Convenient Easy Mix Ratio A:B = 2:1 by Volume
- Advanced Solvent Free Formulation
- This Product is for Professional Use

#### Product Description

**SealBoss® 4040 LV Epoxy Resin** is a 100% solids, hi-mod, 2-component, moisture-tolerant, low-viscosity, high-strength, multipurpose, epoxy injection resin adhesive.

SealBoss 4040 LV Epoxy Resin meets ASTM C-881/ AASHTO M-235, Types I, IV, Class C, Grade 1.

Ask your SealBoss Technician for details. The product is for professional use.

#### Installation Guidelines

SealBoss 4040 LV Epoxy Resin is composed of two components. The mixing ratio by volume is 2:1 (A:B).

##### Concrete Crack Injection

SealBoss 4040 LV Epoxy Resin is suited for the injection of cracks and voids in concrete. The low viscosity of the material provides for good penetration at low to medium injection pressures. SealBoss 4040 LV Epoxy Resin bonds well under pressure and offers high tensile and compressive strength properties for structural repairs. Injection can be performed in wet environments. Best results and highest strengths are achieved in dry conditions. Do not modify the product if used for injection. For best results, epoxy injection must only be performed with approved two component injection equipment. SealBoss provides tested and proven two component injection pumps and accessories.

First prepare the surfaces adjacent to the cracks to expose clean, sound concrete. The injection ports should be spaced from 4 in. (10 cm) to 12 in. (30 cm) apart depending on the crack width and the thickness of the member to be injected. Crack should be sealed at the surface with **SealBoss® 4500F QuickSeal Epoxy Paste**.

##### Other Applications

Surface Preparation Surface must be clean and sound. It may be dry or damp, but free of standing water. Remove dust, grease, curing compounds, impregnations, oils and any other contaminants. Preparation Work: Concrete - Should be cleaned and prepared to achieve a laitance and contaminant free, open textured surface by blast cleaning or equivalent mechanical means. Steel - Should be cleaned and prepared thoroughly by blast cleaning or other equivalent mechanical means. If filled with additives, such as silica flour, sand or thixotropic fillers, a mixing ratio of 2:1 (SealBoss 4040 LV Epoxy Resin : Additives) should not be exceeded. Warning: Any product modification will change the physical properties of the product and published data will not be applicable.

Do not thin. Material is a vapor barrier after cure.

Not for injection of cracks under hydrostatic pressure at the time of application. Do not inject cracks greater than 1/4 in. (6 mm) without consulting Technical Service. The maximum in-service temperature should not exceed 20°F below the HDT in bonding applications subjected to substantial and sustained shear stresses that may cause creep.

Do not add solvents or otherwise thin this material. Color may alter due to variations in lighting and/or UV exposure.

Do not use this product for anchor bolting. Sealboss Corp. declines any responsibilities, warranties, liabilities if used for anchor bolting applications.

#### Chemical Resistance

SealBoss 4040 LV has excellent resistance to a wide range of chemicals including acids and bases, aircraft and automotive fluids, petroleum fuels, cutting oils, etc. It has limited resistance to hydrocarbon solvents. Performance is a function of the specific chemical and concentration, ambient and solution temperatures, and exposure times.

#### Maintenance of Equipment

Tools and equipment must be cleaned immediately after use. Remove all excess product. Cured product is hard to remove. **SealBoss® R70 Pump Flush** is a solvent free, non-flammable cleaner, lubricator, pump and hose conditioner. Please refer to the product data sheet for detailed information.

#### Health and Safety

Protect your health! Always use safety gear in compliance with OSHA and all applicable local and job-site regulations While working with products. Handling of this product may result in spills, splashes, and airborne substances. Wear appropriate safety goggles, gloves and safety clothing at all times. During any pressure injection process a full face shield is advised for anybody within reach of product spill or blowout. Consider property in proximity of the application to prevent loss or damage. Protect jobsite from unauthorized persons. Store all materials and equipment safely and out of reach of children and animals! Observe container labels, SDS, applicable laws and regulations and all instructions before using the product and equipment.

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**Technical Data:**

Mix ratio	2:1, Part A to Part B by volume
Color (mixed)	Amber or purple
Viscosity (ASTM-2393)	approx. 350 cp mixed at 75°F (25°C) Part A 400 cp / Part B 150 cp
Gel Time, 100 g	
@ 50° F / 10° C (ASTM D-2471)	34 minutes
@ 73° F / 23°C (ASTM D 2471)	14 minutes
Compressive Yield Strength (ASTM D-695)	14,400 psi / 113 MPa
Compressive Modulus (ASTM D-695)	420,000 psi / 3910 MPa
Concrete Bond Strength (ASTM C-882)	2 days 3,100 psi /21 MPa
Hardened to Hardened	14 days 3,900 psi / 26.9 MPa
Tensile Strength (ASTM D-638)	10,200 psi / 70 MPa
Flexural Strength (ASTM D-790)	12,000 psi / 82 Mpa
Flexural Modulus (ASTM D-790)	550,000 psi / 3790 Mpa
Elongation at break (ASTM D-638)	2.1%
Heat Deflection Temperature (D-648)	64°C / 147°F
Linear Shrinkage (%)	0.00

Meets ASTM C-881/ AASHTO M-235, Types I, IV, Class C, Grade 1

Cure schedule, 7 days at 73° ± 4° F and test temperature, 73° ± 4° F unless otherwise indicated

**Coverage** 231 cubic inches per gallon.

**Shelf Life** 1 year for cartridges, 3 years in original unopened containers stored indoors at temperatures between 40-95°F.

**Packaging**

- 14.5 oz Cartridge
- 3 Gallon Kit
- 15 Gallon Kit

Handling and Toxicity: For hazard warnings, safe handling and first aid instructions, CAREFULLY READ THE SAFETY DATA SHEETS (SDS) AND CONTAINER WARNING LABELS.

Part A: Liquid epoxy resin, HMIS Health Hazard Rating- 2 (Moderate Hazard). Warning! Causes eye and skin irritation. May cause allergic skinreaction. Harmful if swallowed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid prolonged or repeated contact with skin. Part B: Liquid epoxy hardener, HMIS Health Hazard Rating- 3 (Serious Hazard). Contains alkaline amines. Danger! Causes severe eye and skin burns. May cause allergic skin and respiratory reaction. Combustible, corrosive. Do not get in eyes or skin or on clothing. Avoid breathing vapor. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Keep away from heat and open flame.

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