

SealBoss® 4000 LV - Epoxy Resin



**Structural Strength
Low Viscosity Epoxy Resin
Cartridge System**

RANGE OF APPLICATION

- Structural Repairs
- Crack Injection and Gravity Feed in concrete, masonry, etc.
- Structural Joint Repair
- Welding Cracked Concrete
- Bolt Grouting
- Plate Grouting
- Delaminated Slab Welding
- Repairing Wood Beams

TYPE OF MATERIAL

SealBoss® 4000 LV-Epoxy-Resin is a 100% solids, high modulus, low viscosity non-shrink two component epoxy resin that bonds to concrete and other surfaces.

4000 LV-Epoxy-Resin, Type I and II, Grade 2 Classes B and C for Epoxy Resin Adhesives.

4000 LV-Epoxy-Resin is an easy flow formulation for good penetration into cracks and voids even at lower injection pressures. The product is insensitive to moisture. Due to the high tensile and compressive strength of the cured product, 4000 LV-Epoxy-Resin is ideal for structural repairs.

PROCESSING

4000 LV-Epoxy-Resin is composed of two components. The mixing ratio by volume is 2:1 (A:B). Using our cartridge system either with a hand operated trigger gun or a convenient pneumatic or electric battery operated gun makes the application easy and clean. No matter how much material is dispensed the design of the gun will assure the correct mixing ratio. If a cartridge is not used up the plastic mixer needs to be replaced prior to the next use. Minimum surface temperature is 40F. Do not add solvents to the product.

Surface Preparation

Surface must be clean and sound. It may be dry or damp, but free of standing water. Remove dust, grease, curing compounds, waxes, foreign particles and disintegrated materials. For bonding applications on concrete and steel surfaces sandblasting or other approved mechanical means are recommended.

Various Applications

Gravity Feeding into Cracks

Pour material into vee-notched crack. Continue placement until completely filled. Seal underside if possible if cracks reflect through.

Crack Pressure Injection

Use automated or manual injection equipment. Set appropriate injection ports based on system used. Seal ports and cracks with 4000 QuickSeal paste. When the epoxy seal has cured, inject resin with steady pressure. Consult additional data sheets and MSDS for further information.



Slab Seal Application

Spread resin over slab and allow penetration. Remove excess to prevent surface film. Seal interior slabs and above grade exterior slabs only.

Epoxy Mortar Use

Prime prepared surface with 4000 LV-Epoxy-Resin. Place prepared epoxy mortar before primer becomes tack free. Place the epoxy mortar using trowels. Compact and level with vibrating screed or trowel. Finish with finishing trowel. Exterior application may darken with UV light exposure. Epoxy mortar can be mixed as follows: 1 gal 4000 LV-Epoxy-Resin mixed with up to 5 gal of loose oven dried aggregate yields approx. 800 cu. inch of epoxy mortar. The gel time of pre-mixed material is determined by the quantity of the batch and the temperature. Since the reaction of the epoxy resin produces heat, a large batch is likely to react much faster than a small quantity of material.

MAINTENANCE OF EQUIPMENT

Cartridge Systems are disposable and equipment maintenance is minimal. Remove all excess sealant and any smears. Tools and mixing equipment are best cleaned immediately after use. Solvents are hazardous, are aggressive towards plastic and rubber and might be in conflict with regulations on the jobsite. Caution! Some cleaners are combustible.

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.

STORAGE

Good storage stability of unopened containers at temperatures between 15-30C (58-85 F). Store indoors.

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Injection Guns

We supply a wide selection of injection guns for use with the **4000 LV-Epoxy-Resin** Cartridge System. Systems are either manual, electric or pneumatic. Please see injection gun data sheets for more detailed information or call our technical support.



TECHNICAL DATA

	Comp. A	Comp. B	
Color	A/B Mixed	Amber/Grey/Black	
Solids	100%	100%	ASTM D 1010
Density, g/ml	1.14	0.93	ASTM D 3800-79
Mixing Ratio by Volume	2 parts	1 part	
Viscosity, cps	500	400	
Packaging	cartridge 34oz		
Viscosity mixed, cps	400-500		
Gel Time (C-881)	45 min.		
Pot Life (100 grams @77F)	30 min.		
Storage	Good storage stability for unopened containers at 15-30C 58-85F (1 yr). Store indoors.		
Cured Product			
Compressive Strength, psi (77F)	10,700 after 7 days		ASTM D-695
Bond Strength, psi	2,400 after 1 day		ASTM C-882
Bond Strength, psi	3,600 after 14 days		ASTM C-882
Tensile Strength, psi (77F)	7,000 after 14 days		ASTM D-638
Flexural Strength, psi	9,660		ASTM D-790
Shear Strength, psi	9,040		ASTM D-732
Bond Strength			
Concrete	Crack in Concrete		
Shrinkage	Passes		
Heat Deflection Temperature 120F			ASTM D-648
TYPE I, II, IV, V, GRADE 1			ASTM C-881-87
Classes B & C			
Epoxy Resin Adhesive			
Resistance to Chemicals	Resistant to Most Organic Solvents, Mild Acids, Alkali and Micro Organisms		

Disclaimer:

This data sheet and the use of SealBoss Corp. **4000 LV-Epoxy-Resin** does not imply general suitability of product when used as an anchor or a structural adhesive. Uses of that nature require special testing and approval of a trained engineer in charge of and authorized for the project. Amongst other factors, the correct application and jobsite conditions will determine suitability. As any polymers, Epoxy products are subject to aging. Initial maximum strength may weaken over time. Substrate temperatures, UV-exposure, etc. need to be considered.

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