Edison Coatings, Inc.

FLEXI-SEAL 510, 510-U

100% SOLIDS FLEXIBLE EPOXY SEALANTS

DESCRIPTION:

FLEXI-SEAL 510 & 510-U are two-component, flexible 100% solids epoxies. They are designed for a variety of specialty uses, including:

✓To fill, bridge and seal small "working" cracks in concrete and masonry while resisting traffic, abrasion, vibration, and thermal shock. They are particularly useful for sealing and waterproofing cracks up to 1/8" wide in concrete floors and parking decks, such as shrinkage cracks, settling cracks, flexural (negative moment) cracks and construction joints.

✓In parking deck applications, ***FLEXI-SEAL 510 & 510-U*** provide a means of effectively stopping leakage through the slab at low cost. A three-year study involving treatment of over five miles of cracks in five open, unheated, multi-level commercial parking garages in New York City proved ***FLEXI-SEAL 510*** capable of achieving success rates well above 90% at a fraction of the cost of more expensive repair methods. (PARKING Magazine, April 1990: Concrete Repair Bulletin, IACRS, May 1990; Parking Technology, July 1991). In addition, ***FLEXI-SEAL 510*** exhibited no tendency to induce parallel cracking, as may occur with high modulus epoxy crack sealants and methyl methacrylate systems.

✓As a "Sealer/Healer" on cracked decks, by simple flood coat application. In such cases, ***FLEXI-SEAL 510*** effectively penetrates cracks while providing a more abrasion-resistant seal coating than competitive, more expensive High Molecular Weight Methacrylate Monomer systems.

✓To repair control expansion joint nosing which have been damaged by repeated impact, or to prepare flexible patches for areas subject to high vibration or deflection.

✓In industrial flooring applications, damages to joints in forklift traffic aisles are effectively repaired, providing improved impact resistance.

FLEXI-SEAL 510 features very low moisture insensitivity and high elongation.

FLEXI-SEAL 510-U features moderate viscosity and very high elongation.

TECHNICAL DATA:

Property	*510*	*510-U*
Composition	Urethane/Epoxy	Urethane/Epoxy
Mix Viscosity	250 - 750 cps	1000 - 3000 cps
Mix Ratio	1:1 by volume	1:2 by volume
Pot Life	Approx. 15 - 20 min. at 75^0F (24^0C)	Approx. 15 - 20 minutes at 75^0F (24^0C)
Cure Time (Tack-free)	6 - 12 hours	12 - 24 hours
Cure w/599 accelerator:	4 - 8 hours	6 - 12 hours
Tensile Strength:	Approx. 2,000 psi	Approx. 800 psi
Flexural Strength:	Approx. 14,000 psi	
Elongation:	Approx. 110%	Approx. 375%
Low Temp. Flexibility:	Pass, 180^0 bend, 0^0C	Pass, 180^0 bend, 0^0F
% Solids	100%	100%
VOC Content	0	0
Free Isocyanates	0	0
Colors	Clear (Interior Use), Grey (Exterior Use)	
Packaging	2-lb. Units, 15/case or 10-lb. units, 4/case	

APPLICATION:

CAUTION! Review and follow all safety and handling guidelines as detailed in the Safety Data Sheets furnished with this product.

A. Crack Repair Using 2# Units in Applicator Bottles

1. SURFACE PREPARATION: Surfaces should be clean and dry or damp. Remove oil, grease, dirt, or debris which may block the sealant from penetrating the surface of the crack. Routing is generally not required.

2. MIXING: Remove the screw caps from both the Hardener (Part "B") and Resin (part "A") bottles and carefully pour the contents of Part B into Part A Resin applicator bottle. Replace the applicator screw cap, making certain the snap-on tip closure is securely in place. Thoroughly mix the contents for at least 2 minutes.

3. APPLICATION: Apply to clean, dry, or damp cracks only, free of dust, oil, dirt, standing water, coatings or other contaminants which may interfere with penetration or adhesion. Squeeze a bead of ***FLEXI-SEAL*** over the crack face, applying evenly and moderately. Allow to settle for several minutes and then refill as required. Generally, the wider the crack, the greater the number of reapplications required. For cracks more than 1/16" wide ***FLEXI-SEAL 510-U*** should be used. Cracks should be filled completely, flush with adjacent surfaces. If desired, for better aesthetics, strike off any excess product with a knife before the sealant hardens, maintaining a smooth, flat surface.

CAUTION! ***FLEXI-SEAL 510*** is capable of fully penetrating some deck cracks. Take precautions to avoid product dripping through to areas on the level below the repair area. Pot life, viscosity, flow and setting time are affected by temperature. Do not use product when air or surface temperature are below 45°F or are expected to fall below 45^0F within 24 hours of application. As a general guideline, expect cure times to double for each 18^0F differential in temperature. At temperatures below 50^0F cure rate should be accelerated by addition of 1 - 2 ounces of ***FLEXI-SPEED 599 Accelerator*** per 2-lb. unit. Accelerated films are slightly tougher and less flexible than unaccelerated films. At temperatures below 40^0F, cure may not occur. When working in cold weather, store ***FLEXI-SEAL 510/510-U*** in a warm area until just before use, to improve flow and cure speed.

Use entire contents within 10 - 15 minutes of mixing. Sealant in any appreciable mass can become hot due to the exothermic nature of epoxy reactions, greatly accelerating set. This will not occur once the material has been applied in thin beads over a large surface. If material begins to get hot, quickly apply the remainder or set aside, away from personal contact, or cool by placing container in a pail of water. When working in hot weather, pot life is reduced, and material should be applied more quickly.

4. CURING: Excess surface material may be affected by traffic before initial cure has been reached. As a general guideline, allow 8 - 16 hours before subjecting repaired areas to traffic and adjust for local weather and traffic conditions. Material will cure even if subjected to moisture, but superficial discoloration may result if exposed to rain or other moisture during the first day of cure (or longer at low temperatures). This will not affect performance of sealant which has penetrated the crack.

B. Nosing Repair

1. Surface Preparation: Remove contaminants and unsound existing nosing materials. For high-traffic and expansion joint areas, saw-cut and remove at least 1/2" x 1/2" section on each side of joint.

2. Mixing and Application: Thoroughly blend "A" and "B" components in proper proportion, and brush neat mixture onto all bonding surfaces as a primer. Then add an equal volume of fine silica and reblend thoroughly. Adjust to final working consistency using additional silica, as required. Pour or trowel the mixture into the prepared cavity. For control or expansion joints, install spacer equal in width to joint design width prior to filling. Cover spacer with polyethylene to facilitate release after setting of mixture.

C. Sealer/Healer Application

1. Surface Preparation: Prepare surfaces by shotblasting or pressure washing. If washing is performed, allow surface to dry before coating. Do not apply 100% solids coatings in situations where moisture or vapor may become entrapped behind the coating, such as a slab-on-grade with no moisture barrier.

2. Application: Mix "A" and "B" components in proper proportion, per above instructions, and pour mixture out over the deck surface. Using a squeegee, spread the mixture over the entire surface, allowing sufficient material dwell time over cracks to allow penetration. Redistribute material as required to completely fill cracks while providing a uniform, continuous coating over all surfaces. Roller may be used for final finishing.

STORAGE & HANDLING:

Avoid skin and eye contact, as product is a moderate irritant and may cause sensitization in some individuals. Under normal use conditions, with good ventilation, no special respiratory protection is required. Supplied air respirators should be used when working in enclosed or poorly ventilated areas. Read and follow all safety and handling guidelines as detailed in the Material Safety Data Sheets supplied with this product. Store in sealed containers in a dry, temperature-controlled area at 45-85^0F (6-24^0C).

FOR COMMERCIAL AND INDUSTRIAL USE.

Edison Coatings, Inc.

3 Northwest Drive, Plainville, CT 06062

Phone: (860) 747-2220 or (800) 697-8055 **Fax: (860) 747-2280 or (800) 697-8044**

E-mail: chad@edisoncoatings.com **Internet: www.edisoncoatings.com**

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