



# Z-DECK LITE

Low-modulus, medium-viscosity,  
epoxy resin binder

## DESCRIPTION

Z-Deck LITE is a two-component, low modulus, moisture-tolerant, rapid curing epoxy resin binder. It conforms to the current ASTM C-881, Type III, Grade-2, Class B&C and AASHTO M-235 specifications. This formulation offers a lower viscosity binder that is more conducive for smaller aggregate installations, i.e. walkways, driveways, parking structures, etc.

## ADVANTAGES

- Tolerant to moisture exposure before, during and after cure.
- Convenient easy mix ratio A:B = 1:1 by volume.
- Excellent strength development.
- Desirable viscosity for easy, efficient application of a broadcast overlay.
- Low odor, zero VOC, nonflammable
- Rapid cure, high early strength
- Low modulus

## USES & APPLICATIONS

- Bridge Deck Overlay and Waterproofing
- High Friction Surface Treatments
- Parking structure ramps and decks
- Elevated PCCP Decks
- Chloride Ion Screening
- Repair Mortars

## PRODUCT INFORMATION

- **COLOR:** Clear to light amber, Grey Tint or Tan Tint Available
- **SHELF LIFE:** 2 years in original, unopened containers.
- **STORAGE CONDITIONS:** Store dry at 40–95 °F (4–35 °C). Condition material to 65–85 °F (18–29 °C) before using.
- **VISCOSITY:** Approximately 1,000 cps.

## COVERAGE: Parking Structure/ Light Traffic

Please use the below table for an estimated coverage for a two layer nominal 1/4" broadcast overlay system. Coverages may vary based on substrate condition, temperature and application methods.

	EPOXY	AGGREGATE
Course 1	1 gallon/50 sq. ft.	6-8 lbs./sq. yd.
Course 2	1 gallon/35 sq. ft.	10-12 lbs./sq. yd.

## CURE TIMES

This table provides estimated cure times to be able to open to traffic. It is the applicators responsibility to verify the suitability of the installation prior to the allowance of traffic. These are estimated times only, substrate temperature, material temperature and ambient sunlight conditions may alter the cure requirements.

	AVERAGE TEMPERATURE OF MATERIALS & SUBSTRATE (°F)							
Cure Temp	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Course 1	4 hrs	3.5 hrs	3 hrs	2.5 hrs	2 hrs	1.5 hrs	1 hr	1 hr
Course 2	6 hrs	5.5 hrs	5 hrs	4.5 hrs	3 hrs	2 hrs	1.5 hrs	1 hr

## PACKAGING

- 10 Gallon Kit (2 ea 5 Gallon Buckets)
- 110 Gallon kit (2 ea 55 Gallon Drums)
- 550 Gallon Kit (2 ea 275 Gallon IBC)



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## PHYSICAL PROPERTIES

LABORATORY TESTS	RESULTS
C-881 Viscosity	1,000-2000 cps
C-881 Gel Time	14-18 Minutes
C-884 Thermal Compatibility	Pass
D-2240 Shore D Hardness	68-74
D-570 Absorption	0.1-0.2%
AASHTO T-277 Chloride Ion Permeability	0 coulombs
C-882 Bond Strength (14 day cure)	2,800-3,200 psi
C-883 Shrinkage	Pass
D-695 Compressive Modulus	80,000-120,000 psi
C-579 Compressive Strength 3 hours w/sand	1,100 psi
C-579 Compressive Strength 24 hours w/sand	5,800 psi
D-638 Tensile Strength	2,800-3,100 psi
D-638 Tensile Elongation	40-45%
D-790 Flexural Strength	2,500-3,500 psi
Percent Solids	100%
ACI 503R Adhesion to Concrete	>500 psi (concrete failure)
Caltrans 419 Flexural Creep, 3 day	0.007 inch
Caltrans 419 Flexural Creep, 7 day	0.010 inch



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## DIRECTIONS FOR USE

### Substrate Preparation

Repair all surface defects and unsound, unbonded areas prior to surface preparation, Z-Crete or Z-Patch should be used for required repairs. Surface must be clean and sound. It may be SSD, but free of standing water and free of signs of surface moisture. Surface moisture level should be <4.5% as verified by ASTM F2659. Remove dust, laitance, grease, curing compounds, impregnations, waxes and any other contaminants that would inhibit bonding.

### Preparation Work

Concrete: Should be cleaned and prepared to achieve a laitance and contaminant free, open textured surface (minimum CSP 3-5 as per ICRI texture pads) by shot blast cleaning or equivalent mechanical means.

Steel: Should be cleaned and prepared thoroughly by blast cleaning to white metal finish.

Surface should be blown down with oil free, dry compressed air as a final surface preparation step, ensuring all dust, debris and deleterious material is clear of the application area. Visually verify that the surface exhibits a uniform, clean appearance and all contamination has been removed.

### Mixing

Hand Mixing: Proportion components A and B to 1:1 ratio by volume in a suitable mixing container. Mix components at a low speed (200-400 rpm) with a variable speed motor attached to a “Jiffy” style mixer for a minimum of 3 minutes (depending on material viscosity). Visually verify that the mixed material appears homogenous and well mixed. Take care while mixing not to entrain air into the overlay resin. Only mix enough material that can be adequately placed prior to the material gelling.

Mechanical: For bulk mixing, use mechanical positive displacement pumps that are specifically designed for plural component mixing and metering that provides verifiable accuracy. The mixing equipment should have a static mixing wand, meters that are calibrated and verifiable reporting mechanisms in place.

### Placement

Broadcast Overlay: Apply Z-Deck using 3/16-1/4” notched squeegees, verifying the application rate as shown. Ensure that the application of the Z-Deck binder is applied at a uniform rate and coverage. Caution should be taken on ramps and extreme grade, avoid sags and runs by applying cover aggregate as soon as possible. Maintain wet-line during entire application process. Broadcast #8x40 dry graded Basalt or other acceptable wear aggregate to complete refusal (0.9-1 pounds/ft<sup>2</sup>) of installation surface. Allow to cure. Recover excess aggregate after cure of 1<sup>st</sup> course of Z-Deck Lite overlay. Install second course as described above. A smooth squeegee may be used in lieu of notched squeegee. Apply Second layer of Z-Deck Lite overlay at an application rate of 35 ft<sup>2</sup>/gallon. Apply second layer of aggregate at a rate of 1.2-1.4# ft<sup>2</sup>. Allow to cure following the table herein. Remove excess aggregate, open to traffic.



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## LIMITATIONS

- For professional use only
- Do not thin or reduce
- Minimum substrate and ambient temperature 50 °F (4 °C) and rising. Substrate must maintain a temperature over 50F or meet minimum cure requirements as stated herein.
- Z-Deck
- For on grade, split-slab and unvented metal pan deck, please consult ZIIS Technical Service regarding moisture limitations.
- Minimum age of concrete before application is 21–28 days depending upon curing and drying conditions.
- Do not use on exterior slab on grade.

## HEALTH & SAFETY

**Safety:** Use OSHA-approved personal protective equipment (PPE), including safety glasses, gloves and confined space equipment/procedures if applicable. Avoid skin contact; do not ingest. See SDS for complete safety precautions. For professional use only.

## FIRST AID

**Eye Contact:** Immediately flush with large amounts of water. Seek medical attention.

**Inhalation:** Move to fresh air if symptoms occur. If breathing is difficult, seek medical attention.

**Ingestion:** Seek medical attention immediately.

**Skin Contact:** Wipe off contaminated area and wash with soap and water immediately.

## MANUFACTURING

Products are manufactured by ZIIS (Utah Foam Products Inc.) in the U.S.A. under strict quality assurance practices at our Salt Lake City, UT plant.

## WARRANTY & DISCLAIMER

ZIIS, (Utah Foam Products Inc.) warrants its products to be free from manufacturing defects and that products meet the published characteristics when tested in accordance with ASTM and ZIIS standards. No other warranties by ZIIS (Utah Foam Products Inc.) are expressed or implied, including no warranty of merchantability or fitness for a particular purpose. ZIIS will not be liable for damages of any sort resulting from any claimed breach of warranty. ZIIS' liability under this warranty is limited to replacement of material or refund of sales price of the material. There are no warranties on any product that has exceeded the "shelf life" or "expiration date" printed on the package label.