

Non Slip Overlay for Bridges, Parking Decks, & Ramps

DESCRIPTION:

RepDeck 7097 is a 1:1 ratio, 100% solids, low modulus, low viscosity, moisture tolerant, rapid setting, low viscosity, epoxy binder and adhesive. It is formulated as a single and multi-layer, hi-friction, skid-resistant overlay providing minimal closure times.

FEATURES:

- Light Weight Protective Overlay
- Long Term Protection to Icing Solutions
- Low Dead Load
- Rapid Strength Development in all weather
- Reduced Closure Time
- Self-Priming
- Zero VOC

USES:

- Bike Paths
- Bridge Decks
- Colored Bus Lanes
- Parking Garages
- Parking Ramps
- Roadways

TECHNICAL DATA:

Meets AASHTO Task Force 34 Epoxy Polymer Concrete Bridge Deck Overlays, ACI 548 Type EM (Epoxy Multi-Layer) Polymer Overlay, AASHTO M235, Type III, Classes B & C specifications. ASTM C-881, Type III, Grade I, Classes B & C.

PREPARATION:

The concrete must be sound and free of all foreign material, including oil, grease, dust, laitance or other surface contaminants. Mechanically abrade the surface by grinding, abrasive blasting or water blasting. All concrete of poor quality that is in contact with any reinforcing steel should be removed. Remove rust from exposed reinforcing steel by brushing or sandblasting. Apply **TuffTex Rust Rehab** permanent rust converter to any exposed steel, prior to overlaying with patching or overlaying the **RepDeck 7097**. Patches for spalls and repair areas greater than 1/2" (1.27 cm) in depth should be saw cut 1 1/2" (3.24 cm) deep depending on the depth of the repair and at least 2" (5.08 cm) beyond the perimeter of the repair area. USE CAUTION TO AVOID SAW CUTTING ANY STEEL. Deeply spalled areas can be repaired with **LightningCrete**, **RepPoxy II**, or **RepCrete QP** prior to the overlay. All surfaces to be repaired should be in a saturated-surface-dry (SSD) condition with no standing water on the surface.



MIXING:

Condition material to 65–85°F (18–29°C) for ease of mixing and optimum flow prior to using. Premix each side for thirty seconds, then place 1 part by volume of Side A and 1 part by volume of Side B into a clean pail and mix for three minutes at a low speed using either the TuffTex **Rapid Pail Mixer** "or" a 1/2+ hp heavy-duty drill and "**Jiffy**" Paddle. Mix only what can be used within the pot life.

APPLICATION:

Surface and ambient temperature must be a minimum of 50°F (10°C). If temperatures are below 50°F (10°C), please consult your TuffTex rep for cold weather application methods. Utilize one of the following methods for the application of **RepDeck 7097** and aggregate wearing course, as applicable.



1) MECHANICAL MIXING AND APPLICATION:

RepDeck 7097 can be applied by a truck mounted application machine in accordance with SS-3037 onto the pavement section to be treated in varying widths at a uniform application thickness. Operations shall proceed in such a manner that will not allow the **RepDeck 7097** to separate in the mixing lines, cure, dry, or otherwise impair retention bonding of the high friction surfacing aggregate. The mixed components shall be applied mechanically onto the prepared pavement surface at a minimum a rate of 3-4 gallons/100 sqft (1.21-1.63 liters/sqm) or 25-33 sqft/gallon for a one coat system. Immediately, spread the high friction surfacing aggregate onto the installed RepDeck 7097 epoxy base binder, at a minimum rate of 1-1.5 lb./ sqft (0.454-0.68 kg/sqm).

**2) HAND MIXING AND APPLICATION:**

The **RepDeck 7097** components, Side A and Side B, shall be premixed and proportioned to the correct ratio, 1:1. Mix material using a low speed, high torque drill fitted with the “Jiffy” Paddle or a helical stirrer. This method shall be used where truck mounted application machines are not applicable to the specified locations because of logistics and restrictions. The mixed components shall be hand applied onto a prepared pavement surface at an application coverage rate of 2 1/2 gallon/100 sq/ft (1 liter/sqm) or 40 sqft/gallon. Hand applied base binder shall be uniformly spread onto the substrate surface by means of a (1/4) notched squeegee. Immediately, spread the high friction surfacing aggregate onto the epoxy at a minimum rate of 10 lbs. /sqy. After the initial cure of the first course, remove all excess aggregate and apply course #2, spreading the neat **RepDeck 7097** at a coverage rate of 5 gallon/100 sqft (2.01 liter/sqm) or 20 sqft/gallon once again broadcasting the select aggregate to the point of rejection. After allowing the system to cure – 2.5 hrs. for course #1 and 4 hrs. for course #2 @ 70°F (22°C) and after all the aggregate has been removed it can be opened up to traffic.

CURING:

Minimum Curing Times:

80 °F + (26.67 °C+) 3 Hours

75 °F (24 °C)	3 Hours
70 °F (21.1 °C)	4 Hours
65°F (18.3 °C)	5 Hours
60 °F (15.56 °C)	6 Hours

*It is highly recommended that all components be conditioned in advance of use to 75°F (24°C). This may take 48 hrs. It is to the contractors benefit to maintain the components at elevated temperatures. At lower temperatures, the resin will be become difficult to remove from containers and to mix properly.

CLEAN UP:

Clean tools before the epoxy sets up using Xylene.

PACKAGING:

10-gallon kit: 5 gallon (18.9 liters) pail Side-A and 5 gallon (18.9 liters) pail Side-B
 110-gallon kit: 55 gallon (104 liters) drum Side-A and 55 gallon (105 liters) pail Side-B
 550-gallon kit: 275 gallon (520 liters) tote Side-A and 275 gallon (520 liters) tote Side-B

COVERAGE:

SS-3037: using Automated Application Vehicle: Apply the binder resin at a rate of 3-4 gallons/100 sqft (1.21-1.63 liters/sqm) or 25-32 sqft/ gallon giving a uniform thickness of 50-65 mils (1270-1574 microns). Apply the calcined bauxite within 3 ±1 seconds of the base resin binder application onto the pavement.

By Hand or Spray Bar:

Layer 1: 2 1/2 gallons per 100 sqft (1 gallon /40 sqft or 1 liter/sqm) Aggregate – 10 lbs./sqyd (0.5 kg/sqm)
 Layer 2: 5 gallons per 100 sqft (1 gallon /20 sqft or 2.01 liters/sqm) Aggregate – 14 lbs./ sqyd (0.75 kg/sqm)



STORAGE & SHELF LIFE: The material should be stored between 40-95°F (5-35°C) in a cool, dry area away from direct sunlight. Shelf life of properly stored, unopened containers is 24 months. Excessive temperature differential and/ or high humidity can shorten the shelf life expectancy.

PHYSICALS:

Viscosity @ 77°F (25°C)	2000 cps
Gel Time (60 g mass)	25 min.
Tack Free Time 73°F or 23°C	3 to 5 hrs.
Tensile Properties (ASTM D638)	7 day cure
Tensile Strength	2800 psi
Tensile Elongation	40%
Bond Strength (ASTM C882)	
2 day cure	2000 psi
14 day cure	2800 psi
Compressive Properties (ASTM D695)	7 day cure
Compressive Strength	5000 psi
Compressive Modulus	110,000 psi
Compressive Strength (ASTM C579)	
3 Hours	1500 psi
24 Hours	5000 psi
Bond Strength (ASTM C1583/ACI 503R)	300 psi
Flexural Strength (ASTM D790)	3000 psi
Shrinkage on Cure (ASTM D2566)	0.20%
Thermal Compatibility (ASTM C884)	Pass
Heat Deflection Temperature (ASTM D648)	120°F (49°C)
Water Absorption (ASTM D570)	0.2% (24 hr)
Chloride Ion Permeability (AASHTO T277)	0.0 coulomb
Shore D Hardness (neat) ASTM D2240	60-70

COLOR:

Amber

LIMITATIONS:

Minimum substrate temperature is 50°F (10°C). Do not thin. Solvents will prevent proper cure. Use oven-dried aggregate. Material is a vapor barrier after cure. Do not place **RepDeck 7097** on magnesium phosphate cement concrete.

SAFETY:

Eyes: Hold eyelids apart and flush thoroughly with water for 15 minutes. *Skin:* Remove contaminated clothing. Wash skin thoroughly for 15 minutes with soap and water.

Inhalation: Remove person to fresh air. *Ingestion:* Do not induce vomiting. In all cases, contact a physician immediately if symptoms persist. Obtain, read, and understand the Safety Data Sheet (SDS) before use of this or any other TuffTex Materials product.



CAUTION:

READ SDS PRIOR TO USING PRODUCT

Side A - irritant; Side B – corrosive product is a strong sensitizer. Use with adequate ventilation. Wear protective clothing, gloves and eye protection (goggles, safety glasses and/or face shield). Do not take internally. In case of ingestion, seek medical help immediately. May cause skin irritation upon contact, especially prolonged or repeated. If skin contact occurs, wash immediately with soap and water and seek medical help as needed. If eye contact occurs, flush immediately with clean water and seek medical help as needed. Dispose of waste material in accordance with federal, state and local requirements.



WARRANTY:

Due to the use of this product beyond our control, we assume no liability for damages of any kind, and the user accepts the product "as is" and without warranties, expressed or implied, from either **TuffTex** or its agents. The suitability of the product for an intended use shall be solely up to the user. Our only obligation shall be to replace or pay for any material proved defective, with our liability limited to the purchase price of materials supplied by us.

DISCLAIMER:

Refer to the SDS sheet before use. The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of TuffTex Materials. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Published technical data and instructions are subject to change without notice. Contact your local TuffTex distributor or technical representative for additional technical data and instructions.