



# Leaders in Infrastructure TECHNOLOGY

Highway and Specialty Systems Division

## POLY-TUFF SYSTEMS INTERNATIONAL

Meets ASTM C 881-90,  
Type III, Class B & C

Meets AASHTO M235,  
Type III, Grade 1, Class B & C

Excellent Bond Strength

High Early Strength

Single or Multi-Layer Application

Mix Ratio: 1:1 by Volume

Moisture Insensitive

Non-Flammable

## E-TUFF® 7097

**LOW MODULUS, LOW VISCOSITY  
EPOXY ADHESIVE & BINDER**



**HIGHWAY & SPECIALTY SYSTEMS DIVISION**

Engineered Construction Systems

## 1.01 DESCRIPTION

**E-Tuff® 7097** is a two component, 1:1 ratio, 100% solids, low modulus, low viscosity, moisture tolerant, rapid setting, multi-purpose adhesive and epoxy binder. Formulated for use in bonding skid resistant materials to hardened concrete and as a binder in epoxy mortars.

## 1.02 USES

- Bonding skid-resistant overlays to bridges and elevated slabs
- Concrete Repair and Patching
- Colored Aggregates and Glass for Demarcation
- High Friction Surface Treatment
- Parking Decks, Ramps, Walkways, Stairways, Steep Inclines

## 1.03 FEATURES

- Excellent Abrasion, Impact and Chemical Resistance
- Excellent Adhesion
- High Modulus, High Strength Adhesive
- High Strength, Low Viscosity
- Mix Ratio 1:1 By Volume For Ease Of Use
- Quick Return To Service
- Rapid Cure Return to Traffic Formulation
- Structural Adhesive
- VOC And EPA Compliant In All States And Provinces In North America.

## 1.04 TECHNICAL DATA

Meets ASTM C881, Type III, Grade 1, Class B & C and AASHTO M235, Type III, Grade 1, Class B & C

## 1.05 COLOR

Clear Light Amber

## 1.06 PACKAGING

10-gallon kit: 5 gallon pail of Side-A (18.9 liters) and 5 gallon pail of Side B (18.9 liters)

100-gallon kit: 50 gallon drum of Side-A (189 liters) and 50 gallon tote of Side B (189 liters)

500-gallon kit: 250 gallon tote of Side-A (946 liters) and 250 gallon tote of Side B (946 liters)

## 1.07 ESTIMATED COVERAGE

Minimum Epoxy/Aggregate Coverage Rates

Single and Multi-Layer Coverage Course #1:

Epoxy rate: 40 sq.ft./gallon (1 liter/sq.m)

Aggregate rate: 1-1.5lb/sq.ft (4.88-7.32 kg/sqm).

Course #2: Epoxy rate: 20 sq.ft./gallon (2 liter/sqm)

Aggregate rate: 1-1.5 lb/sq.ft (4.88-7.32 kg/sq.m).

PROPERTIES and TESTING		
LABORATORY TESTS	RESULTS	ASTM C881 SPECIFICATIONS
Mix Ratio	1:1 by volume	None
ASTM D695 Compressive Modulus	110,000 psi	130,000 maximum
ASTM D638 Tensile Strength	2,800 psi	None
ASTM D638 Tensile Elongation	50% @ 77°F	30% minimum
ASTM C882 Bond Strength (14 day cure)	3,000 psi	1,500 psi minimum
ASTM D570 Water Absorption	0.2%	1.0% maximum
ASTM C881 Gel Time	20 minutes	30 minutes
ASTM D2393 Brookfield	1700 cps	2000 cps maximum
C 883 Effective Shrinkage	Pass	Pass
ASTM C884 Thermal Compatibility	Pass	Pass
AASHTO T-277 Chloride Ion Permeability	0.0 coulombs	None

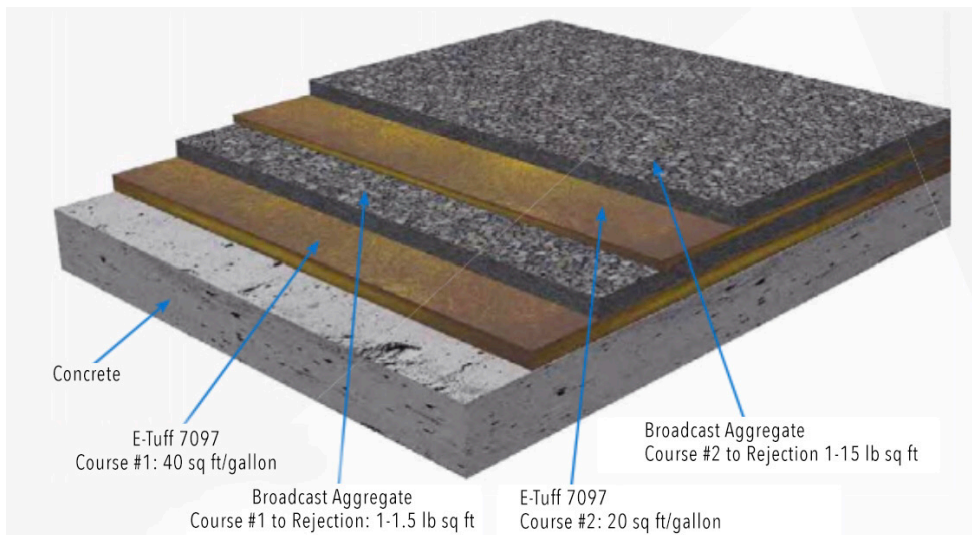
## Application

1. Repair delamination, potholes and cracks with E-Tuff® Deck II.
2. Clean surface by shotblasting to remove all contaminants. Remove dust and debris by blowing off with oil-free compressed air.
3. Mechanically mix component A with component B 1:1 by volume with Jiffy type mixer and low-speed variable drill at 300 rpm for a minimum of 3 minutes. Mix only the quantity that can be used within its gel time.
- 3a. Semi-Automated application
4. Apply neat E-TUFF® 7097 by notched squeegee at the specified rate.
5. Broadcast select aggregate to refusal.
6. After initial cure, remove excess aggregate. Do not open to traffic.
7. Allow to cure following the table below. Open to traffic. Repeat steps 4-7 if Multi-Layer is specified.

### MINIMUM CURING TIMES OF E-TUFF® 7097

60°F (16°C)	6 Hours
65°F (19°C)	5 Hours
70°F (22°C)	4 Hours
75°F (24°C)	3 Hours
80°F (27°C)	3 Hours
85+°F (29+°C)	2.5 hrs





### 2.01 CLEAN UP

Clean tools before the epoxy adhesive sets up using acetone or PSI's EnviroClean™.

### 2.02 SHIPPING, STORAGE AND SELF LIFE

The material should be shipped and stored between 40°F to 95°F (5°C to 35°C), in a dry and out of direct sunlight. The shelf life of properly stored and unopened containers is 24 months. Excessive temperature differential and/or high humidity can shorten the self-life.

### 2.03 LIMITATIONS

- Minimum substrate temperature is 50°F (10°C).
- Do not thin with solvent. Solvent will prevent proper cure.
- Do not use wet aggregate. Aggregate must be clean, dry and bagged.
- Do not place on magnesium phosphate cement concrete.

### 2.04 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.
- SDS: Obtain, read and understand the Safety Data Sheet before use of this or any other Poly-Tuff System International products.
- Do not take internally.

### 2.05 CAUTION

- Side A - Irritant
- Side B - Corrosive
- Product is a strong sensitizer
- Use with adequate ventilation
- Wear protective clothing, gloves and appropriate eye protection (safety glasses, goggles or face shield)
- Do not take internally

**READ SDS PRIOR TO USING PRODUCT. FOR PROFESSIONAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. MADE IN THE USA.**



8550 W. Desert Inn Rd, Suite #102-451 • Las Vegas, Nevada 89117  
Sales Offices • 2051 Reliance Parkway • Bedford TX 76021  
& 13827 Carmenita Rd, Suite D • Santa Fe Springs, CA 90670

(866) 977-8833 • Sales@PolyTuffUS.com

**PolyTuffUS.com**