



# TK-2109 EPOXY BRIDGE DECK OVERLAY

## Technical Data

Division of Sierra Corporation  
ISO 9001:2008 Certified

### 1. PRODUCT NAME:

TK-2109 EPOXY BRIDGE DECK OVERLAY

### 2. MANUFACTURER

TK PRODUCTS  
DIVISION OF SIERRA CORPORATION  
11400 West 47th Street  
Minnetonka, MN 55343  
952-938-7223  
952-938-8084 (FAX)  
E-mail: sales@tkproduct.com  
Website: http://www.tkproduct.com

### 3. PRODUCT DESCRIPTION:

TK-2109 EPOXY BRIDGE DECK OVERLAY is a solvent-free, 100% solids, low modulus, two component epoxy. TK-EPOXY BRIDGE DECK OVERLAY system is specially designed to provide a flexible, yet strong bond and seal to an existing or new bridge deck or parking structure. TK-EPOXY BRIDGE DECK OVERLAY, with our specified selected sharp black granite aggregate, will provide a 3/8 inch layer of exceptional skid resistance.

#### Benefits:

- Excellent Bond Strength
- Moisture Insensitive
- Non-Shrink
- Impact resistant/resilient
- Flexible to withstand slight movement and extreme temperature changes
- Low Viscosity
- Easy to Mix 1 to 1 ratio
- High Early Strength
- Chemical resistant

### 4. TECHNICAL DATA:

-ASTM C-881, Type I and II, and III, Grade 1, Class B, C and D

#### Epoxy Resin Properties:

Mix Ratio 1:1 by volume  
Gel Time: 25-35 minutes @ 75°F  
Viscosity 400-600 cps  
Bond Strength 3082 psi

-ASTM D-695

Compressive Modulus 132500

-ASTM D-638

Tensile Strength 3115 psi  
Tensile Elongation 36 %  
Youngs Modulus 293200

-AASHTO M-235 Type II and III, Grade 1, Class B, C and D

### 5. APPLICATION PROCEDURES AND INSTRUCTIONS

Be familiar with application instructions before use. They can be found on the container label.

The compound can be used at a range of temperatures. The colder the temperature, the longer the pot life. The higher the temperature, the shorter the pot life.

A proper inspection is required of the bridge deck for structural delaminated areas. Areas to be marked and removed.

#### Application:

Repair delaminations, potholes and cracks with TK-210 EPOXY PATCH. Before placement of TK-2109 EPOXY BRIDGE DECK OVERLAY, the entire deck should be steel shot blasted to a depth that assures all deteriorated and contaminated (oil, dirt, rubber, paint carbonation, laitance, weak surface mortar, etc.) concrete is removed from the surface. Compressed air shall be used to remove any remaining dust, the compressor used shall be properly maintained and filtered so neither oil or moisture is sprayed at the deck. The deck should be overlaid within 24 hours of cleaning.

Air and pavement temperatures should be 60°F. or higher when any work is done. Cooler temperatures will require longer set time before it can be opened to traffic.

#### Coverage:

*One Coat Application:* 40 sq. ft per gallon

- Aggregate approx. 3 lbs/ sq. ft.

#### *Two Coat Application:*

First coat: 40 sq. ft per gallon

- Aggregate approx. 3 lbs/ sq. ft.

Second coat: 20 sq. ft. per gallon

- Aggregate approx. 4 lbs/ sq. ft.

#### Mixing:

This formulation is supplied in two separate containers, (Part A and B) to be mixed together by a paddle mixer powered by a low speed electric drill, at the job site for 3 to 5 minutes, or the use of a proportioning pump.

Product must be thoroughly mixed for 3 to 5 minutes. In order to increase working time, catalyzed material can be immediately poured onto surface and then spread evenly with notched applicator or squeegee.

Mixing ratio of the two components is one to one by volume (not weight).

TK-2109 EPOXY BRIDGE DECK OVERLAY does not contain volatile solvents and none should be added in the field.

Use Aggregate sold by or recommended by TK Products. It is to be washed, graded, and dry.

#### Installation:

The concrete deck must be dry at time of installation.

The mixed material should be immediately applied to the deck surface and spread by a notched squeegee to the proper application rate.

The aggregate is to be immediately broadcasted over the epoxy at a rate to completely cover the epoxy.

#### Limitations:

Shelf life is approx. 12 months from date of manufacture when stored in unopened containers. Apply in temperature above 60° F. or expect longer cure time.

#### Equipment Cleanup:

Use a good solvent such as TK-00 Solvent to clean equipment.

#### Safety Precautions:

Safety goggles/glasses, gloves and a respirator (to minimize the intake of the fumes) should be worn when handling this material.

Avoid skin contact; if contact accidentally occurs, remove immediately with solvent then wash with soap or a lanolized cleaner.

Avoid eye contact; If contact accidentally occurs, flush with warm water and get medical attention immediately.

Adequate safety measure must be taken to prevent fire in areas where solvents are being used.

Keep out of reach of children.

## 6. AVAILABILITY

TK-EPOXY BRIDGE DECK OVERLAY is packaged in 10-gallon and 110-gallon kits, and is available through TK Distributors. Contact TK Products for the nearest distributor.

## TK DISCLAIMER:

Every effort has been made to ensure the accuracy of the above information and to avoid infringement of any patent or copyright. The information is based on field tests by government and private agencies, as well as lab tests, and on technical data from raw material manufacturers. The person(s) specifying or requesting the use of these products is responsible for assuring their suitability for a specific use, as well as the proper application of the products. Where there is any question as to the suitability of a particular product, a small test patch is recommended. See also CONDITIONS OF SALE/ LIMITED WARRANTY (Section 7) above.

## FOR INDUSTRIAL USE ONLY

## 7. CONDITIONS OF SALE/ LIMITED WARRANTY

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## 8. TECHNICAL SERVICES

The TK office offers assistance with specifications, performance test data and field services.

## 9. FILING SYSTEMS

Information Handling Services  
PO Box 1213  
Englewood, CO 80150  
Information Marketing Services  
13271 Northend  
Oak Park, MI 48237