

TK-211 EPOXY PATCH



TK PRODUCTS

Division of Sierra Corporation
ISO 9001:2000 Certified

Technical Data

1. PRODUCT NAME

TK-211 EPOXY PATCH

2. MANUFACTURER

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3. PRODUCT DESCRIPTION

TK-211 EPOXY PATCH is a trowelable or self leveling patching compound for concrete and other substrates. This compound is a two component, clear, light amber colored or gray polymer modified epoxy resin system. Sand and coarse aggregate or fillers can be used in this system as an extender to permit more economical compounding. As much as five parts of sand (by volume) can be used with one part of the mixed binder.

Uses:

TK-211 EPOXY PATCH patches and repairs damaged concrete. It may also be used as a crack filler.

Additional Uses:

- Bonding agent:
Parking ramps, garages
- Bridge decks and highway repair:
Patching
- Drum and tank linings:
Plastic tooling
- Electrical potting:
Protective coatings
- Floor and wall coatings:
Resurfacing
- Grouting dowels and holes:
Swimming pools
- Maintenance coatings:
Waterproofing

Benefits:

TK-211 EPOXY PATCH has excellent chemical resistance, particularly to deicing salts, petroleum products, and certain chemicals and acids.

TK-211 EPOXY PATCH is approved for use by the USDA in federally inspected meat and poultry processing areas.

TK-211 EPOXY PATCH provides a skid-proofing medium when mixed with coarse sand and/or aggregate.

4. TECHNICAL DATA

Composition:

Part A (base) = Epoxy Resin
Part B (catalyst) = Curing Agent
Physical Properties:

	Part A	Part B
- Density lbs./gal:	9.40 lb.	8.01 lb.
- Spec. Gravity:	1.13	0.96
- % Non-Volatile	100%	100%
- Material VOC	0 G/L	0 G/L
- Pot Life @ 70°F.	= 15 – 20 min.	
- Tack Free in	4 hours	

Applicable Standards:

TK-211 EPOXY PATCH meets the following ASTM Tests and Federal Specifications:

- ASTM C-881: Type I & II
- ASTM D-1652-59T: Epoxy Content
- ASTM D-1484-59T: Cure Rate
- ASTM D-638: Tensile strength, ultimate elongation, modulus of elasticity and toughness, heat aging.
- ASTM D-570: Water Absorption
- ASTM D-676: Hardness, Shore D
- AASHTO Epoxy Resin Guide
- Specifications: Bond Strength
- U.S. Navy M11-C 16423 A: Impact Strength
- Corps of Engineers CRD-C-595-87

This product is currently not regulated by 1999 Federal EPA VOC Requirements.

5. APPLICATION PROCEDURES AND INSTRUCTIONS

Before buying and using this product, read completely this product's label, technical data sheet, and Material Safety Data Sheet (MSDS), available where product is purchased.

Be familiar with the application instructions before use. They are on the container label.

The compound can be used at a range of temperatures. The colder

the temperature, the longer the pot life and cure time. The warmer the temperature, the shorter the pot life and cure time. Spreading the material immediately after mixing will increase the available working time.

Application:

Surface must be clean, sound and dust-free. Remove unsound concrete with small pneumatic or electric hammer. Light sandblasting is recommended. Repairs made on marginal concrete may not be successful and are not usually recommended.

Apply a tack coat of TK-211 EPOXY PATCH to the area to be patched to enhance the adhesion of the epoxy mortar and to prevent binder "starvation" at the interface. Tack coat coverage should be applied as sparingly as possible yet completely wet the surface, approximately 100 sq. ft. per gallon.

Place epoxy mortar while tack coat is still "tacky".

Air and pavement temperatures should be 60°F. or higher when any work is done.

Use approximately 5 parts of sand (volume) to 1 part mixed binder (by volume). One gallon unit mixed with five parts aggregate equals 0.66 cubic feet.

Compact the epoxy mortar by tamping, rolling, etc., to minimize air voids. Density of compacted mortar should be at least 130 lbs. per cubic foot.

The two components of the epoxy resin binder can be warmed by indirect heat (not to exceed temperature higher than 100°F.) to reduce their viscosity or to accelerate the cure.

Limit depth of application to 1". Applications beyond this depth must cure for 2 hours before a second layer can be applied. For best adhesion, keep heavy traffic off the installation for 72 hours.

Coverage:

Tack coat approximately 100 sq. ft. per gallon. One gallon unit mixed with 5 parts sand (by volume) added equals 0.66 cubic feet.



TK
PRODUCTS
3

TK-211 EPOXY PATCH
Concrete Bonding & Repair

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PRODUCTS
3



Mixing:

This formulation is supplied in two separate containers, (Part A and B) to be mixed together by hand or paddle powered by a low speed electric drill, at the job site immediately before combining the liquid with the sand, or aggregate filler, etc.

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

The presence of moisture will not affect the cure of TK-211 EPOXY PATCH.

TK-211 EPOXY PATCH does not contain volatile solvents and none should be added in the field.

Aggregate to be used should be graded and washed sand suitable for Portland cement; concrete must be surface dry when used. For feather edged repairs, use #8 sieve to remove particles. Sand meeting ASTM C-144 graduation may be used.

Limitations:

Shelf life is approximately 12 months from date of manufacture when stored in unopened containers. Apply in temperature above 50° F.

Equipment Cleanup:

Use an aromatic 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 lanolin 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.

Refer to this products Material Safety Data Sheet for further information. MSDS's are available through TK Distributors, the TK Office or the TK Website. This information should be read before using this product.

6. AVAILABILITY

TK-211 EPOXY PATCH is packaged in 10, 2 and 1/2 gallon kits, and is available through TK Distributors. Contact TK Products for the nearest distributor.

7. CONDITIONS OF SALE / LIMITED WARRANTY.

TK Products, division of The Sierra Corporation, warrants that this product conforms to the label descriptions, is free from manufacturing defects, and is fit for the ordinary purposes for which such goods are

used. Inasmuch as the use of this product by others and other factors affecting product performance are beyond TK Products' control, TK Products does not guarantee the results to be obtained. There are no warranties except as stated herein, either express or implied, including implied warranties of merchantability or fitness for a particular purpose. SHOULD THIS PRODUCT FAIL TO GIVE SATISFACTORY RESULTS, TK PRODUCTS WILL REPLACE THE PRODUCT OR, AT ITS OPTION, REFUND THE PURCHASE PRICE. THIS IS THE SOLE AND EXCLUSIVE REMEDY FOR ANY FAILURE OF THIS PRODUCT TO PERFORM AS WARRANTED AND SHALL ALSO CONSTITUTE LIQUIDATED DAMAGES IN CASE OF LOSS. UNDER NO CIRCUMSTANCES SHALL THE BUYER BE ENTITLED TO ANY OTHER REMEDY OR DAMAGES. REMEDIES FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES ARE SPECIFICALLY EXCLUDED. TK Products does not authorize any person to assume for it any other liability in connection with the sale or use of this product unless specifically authorized by TK Products in writing.

8. TECHNICAL SERVICES

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

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.

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