

TK-411 PASTE EPOXY PATCH

Meets Federal EPA's VOC Requirements



TK PRODUCTS

Division of Sierra Corporation
ISO 9001:2008 Certified

Technical Data

1. PRODUCT NAME:

TK-411 PASTE EPOXY PATCH

2. MANUFACTURER

TK PRODUCTS
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Website: <http://www.tkproduct.com>

3. PRODUCT DESCRIPTION:

TK-411 PASTE EPOXY PATCH is a trowelable, sag resistant patching compound for concrete and other substrates. This compound is a two component, 100% non-volatile filled epoxy/amine 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 two parts of sand (by volume) can be used with one part of the mixed binder.

BASIC USES:

- Bridge decks and highway repair:
 - Patching and dowel bar inserts
- Drum and tank linings:
 - Plastic tooling
- Electrical potting:
 - Protective coatings
- Floor and wall coatings:
 - Resurfacing
- Grouting dowels and holes:
 - Swimming pools
- Vertical patching:
 - Secondary confinement area, as a cove where a wall and floor connect.
- Maintenance coatings:
 - Waterproofing

BENEFITS:

TK-411 PASTE EPOXY PATCH has great resistance, particularly to deicing salts, petroleum products, and certain chemicals and acids, such as fertilizers, pesticides, and many other strong chemicals.

TK-411 PASTE EPOXY PATCH is approved for use by the USDA in federally inspected meat and poultry processing areas.

TK-411 provides a skid-proofing medium when mixed with coarse sand and/or aggregate.

4. TECHNICAL DATA:

COMPOSITION AND MATERIALS:

Part A (base) = Filled epoxy resin
Part B (catalyst) = Filled amine curing agent

Physical Properties:

	Part A	Part B
- Density lbs./gal	11.16 lb	10.72 lb
- Spec. Gravity:	1.34	1.28
- % Non-Volatile	100%	100%
- Material VOC	0 G/L	0 G/L
- Pot Life @ 70° F:		30 min.
- Tack Free:		4 hours

APPLICABLE STANDARDS:

TK-411 PASTE EPOXY PATCH is manufactured to comply with the following ASTM tests and federal specifications:

- ASTM D695-08 (Modified):
 - Compressive Strength 11,690 psi
 - Compressive Yield Strength 11,205 psi
 - Compressive Modulus 334,099 psi
- ASTM C-881: Type I, II & III Grade III, Class A, B, & C
- 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

-A.I.M. Category:- Nonflat Coatings – Exterior, maximum allowable VOC 380 G/L.

-A.I.M. Definition: A coating that is not defined under any other definition in this section and that registers a gloss of 15 or greater on an 85-degree meter or 5 or greater on a 60-degree meter according to ASTM Method D 523-89, Standard Test Method for Specular Gloss.

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 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 hotter the temperature, the shorter the cure time and pot life. At 70° F, pot life is approx. 35 min.; at 35° F, pot life is approx. 60 min. 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-411 Paste 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.

Use approximately 2 parts of sand (volume) to 1 part mixed binder (by volume). One gallon unit mixed with two parts aggregate equals 0.40 cubic feet.



Place paste before tack coat has dried. Care must be taken not to use too much fill sand to make proper mixing impossible and therefore have a patch failure.

Air and pavement temperatures should be 50° F. or higher when any work is done.

Limit depth of application to 1". Applications beyond this depth must cure for 2 hours before a second layer can be applied.

COVERAGE

One gallon of 100% solids = 231 cubic inches or .134 cubic feet.

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-411 Paste Epoxy Patch.

TK-411 PASTE 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 35° F.

CLEAN UP

Use an aromatic solvent such as TK-00 Solvent to clean equipment and to remove the compound from skin in cases of accidental contact.

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 THE REACH OF CHILDREN.

For further safety controls, Material Safety Data Sheets are available through TK Distributors, the TK Office or the TK Website. This information should be read before using this product.

6. AVAILABILITY

TK-411 PASTE EPOXY PATCH is packaged in ten, two 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 its products conform to the label descriptions, are free from manufacturing defects, and are fit for the ordinary purposes for which such goods are used. Inasmuch as the use of TK Products' 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 ANY TK PRODUCTS' 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 TK PRODUCTS' PRODUCTS 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 its products unless specifically authorized by TK Products in writing.

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

TK DISCLAIMER:

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FOR INDUSTRIAL USE ONLY

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