



# TK-EPO™ 2000 BONDING AGENT

## Multi-Purpose Adhesive and Repair Epoxy

Item No. TK-EPO 2000

### PRODUCT DESCRIPTION

TK-EPO™ 2000 BONDING AGENT is a two-component, 100% solids, medium viscosity, multi-purpose epoxy for high strength bonding between new and existing materials and providing crack injection repairs to a variety of surfaces.

#### Features:

- High strength structural adhesive
- Moisture insensitive - may be used on either damp or dry surfaces
- May be used as a binder in epoxy mortar
- Convenient 1:1 mix ratio (by volume)

### USES:

TK-EPO™ 2000 BONDING AGENT is used as an adhesive to bond fresh concrete to existing concrete, metal or wood surfaces. It may also be used in structural crack repair by filling cracks and voids, or as an anchoring adhesive in a variety of applications.

### APPLICATION PROCEDURES

#### PREPARATION:

**Surface Preparation** - Concrete shall have reached its design strength and be dimensionally stable prior to placement of TK-EPO™ 2000 BONDING AGENT. All surface contamination must be removed by mechanical means, creating a surface profile of exposed sound aggregate that will provide a strong bond surface. All metal surfaces should be sandblasted to white metal finish and wiped clean with solvent.

#### MIXING:

- 1) Mix only the amount of material which can be used within the material's pot life.
- 2) Start by premixing the individual components separately, then proportion out 1:1 of each component and carefully transfer to a clean pail.
- 3) Mix thoroughly for 3 minutes using a Jiffy mixer on low speed (400-600 rpm) making sure to scrape the sides and bottom of the container while mixing.
- 4) To prepare an epoxy patching mortar, slowly add 1-1/2 to 3 parts of oven-dried silica sand to 1 part of mixed epoxy (by volume).
- 5) Mix only until aggregate is fully wetted out.

#### APPLICATION:

**Bonding Fresh to Existing Concrete** - Use a brush, roller or squeegee to apply a bond line approximately 15-30 mils (0.38 to 0.76 mm) thick. Place fresh concrete while the epoxy is still tacky.

**Gravity Fed Cracks** - Blow vee-notched cracks with oil-free compressed air and seal undersides if cracks reflect through. Pour the mixed epoxy into the cracks and repeat until completely filled.

**Patch and Grout** - Prime the substrate with neat mixed epoxy. Place the epoxy mortar using a trowel while the primer is still tacky.

#### CLEAN UP:

Collect spills and leaks with an absorbent material and dispose of in accordance with local, state and Federal disposal regulations. Flush area with water to rinse. Uncured material may be removed using TK-KWIK KLEAN 2012\* or an approved solvent. Cured material may only be removed by mechanical means.

#### COVERAGE:

Typical coverage rate is 50-100 square feet per gallon (1.2 - 2.4 m<sup>2</sup>/L).

Coverage rates are provided as a guideline only. Many factors including surface texture, porosity and weather conditions will determine actual coverage rates.

### TECHNICAL DATA

Mix Ratio:	1:1 by volume
Viscosity:	4,000 cps
Gel Time (60 g mass):	45 minutes
Tack Free Time (73°F/23°C):	3-4 hours

### TESTING DATA

TEST	RESULTS
ASTM D 638 Tensile Properties: Tensile Strength Tensile Elongation	7,500 psi (51.7 MPa) 3%
ASTM C 882 Bond Strength: 2-day cure 7-day cure	1,500 psi (10.3 MPa) 2,500 psi (17.2 MPa)
ASTM D 695 Compressive Properties (7-day cure): Compressive Strength Compressive Modulus	11,000 psi (75.9 MPa) 200,000 psi (1,400 MPa)
ASTM D 732 Shear Strength:	5,500 psi (37.9 MPa)
ASTM D 790 Flexural Strength	6,000 psi (41.4 MPa)
ASTM D 2566 Shrinkage on Cure:	0.2%
ASTM C 884 Thermal Compatibility:	Pass
ASTM D 648 Heat Deflection Temperature:	122°F (50°C)
ASTM D 570 Water Absorption:	0.2% (24 hour)

### **LIMITATIONS:**

- Minimum substrate temperature is 40°F (5°C).
- Do not thin as solvents will prevent proper cure of this product.
- This product acts as a vapor barrier once cured.

### **PRECAUTIONS:**

#### *Safety Considerations*

- Component "A" - Irritant, Sensitizer. Contains modified epoxy resin. Prolonged contact with skin may cause irritation. Avoid eye contact. Harmful if swallowed.
- Component "B" - Corrosive, Irritant, Sensitizer. Contains amines, nonylphenol. Contact with skin may cause severe burns. Eye/skin/respiratory irritant. Harmful if swallowed.
- Product is a strong sensitizer. Use of safety goggles and chemically resistant gloves recommended.
- Use of a NIOSH/MSHA organic vapor respirator is recommended where ventilation is inadequate. Avoid inhalation of vapors and avoid skin contact.
- EYE CONTACT: Flush immediately with water for at least 15 minutes and contact a physician immediately.
- RESPIRATORY CONTACT: Relocate person to fresh air.
- SKIN CONTACT; Remove any contaminated clothing. Remove epoxy immediately with a dry cloth or paper towel. Solvents should not be used as they carry irritant into the skin.

### **FIRST AID:**

- Consult this product's safety data sheet for additional health and safety information. Safety Data Sheets are available through TK distributors, the TK office and the TK website.

### **AVAILABILITY:**

TK-EPO™ 2000 BONDING AGENT is available through TK Distributors. Contact TK Products for the nearest distributor. Packaged in 2-gallon (7.6 L) kits.

Storage Conditions: Shelf life is 2 years in original unopened containers. Store at 40°F-95°F (4.4°C-35°C). Condition material to 65°F-85°F (18°C-29°C) before using.

FOR PROFESSIONAL USE ONLY

### **NOTES:**

\*TK-KWIK KLEAN 2012 must be purchased separately

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### **CONDITIONS OF SALE/ LIMITED WARRANTY**

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