



TK-EPO™ 15K EPOXY GROUT

High Performance Epoxy Grout

Item No. TK-EPO 15K

PRODUCT DESCRIPTION

TK-EPO™ 15K EPOXY GROUT is a three-component, 100% solids, high performance, epoxy machine grout for providing precise alignment, high impact resistance and oil and chemical resistance to dynamic load equipment foundation applications.

Features:

- Ideal for providing precise placement beneath dynamic loads.
- Even aggregate distribution.
- High early strength and impact resistance.
- Excellent flowability.
- Negligible shrinkage and creep.
- Pre-measured kits for ease of use.

USES:

TK-EPO™ 15K EPOXY GROUT is used in the heavy industrial equipment industries including: wind turbines, gas transmission, refining, chemical processing, pulp and paper, steel rail, marine, mines, and other machine soleplate grouting applications. It may be used for new equipment installations or for quick re-grouting, and may also be used for installing anchors and dowels.

APPLICATION PROCEDURES

PREPARATION:

Surface Preparation - Concrete shall have reached its design strength and be dimensionally stable prior to placement of TK-EPO™ 15K EPOXY GROUT. All surface contamination must be removed by mechanical means, creating a surface profile of exposed sound aggregate that will provide a strong bond surface for TK-EPO™ 15K EPOXY GROUT. All metal surfaces to come in contact with the grout should be sandblasted to white metal finish and wiped clean with solvent. Items not intended to bond to grout, such as leveling screws, wedges and bolts must be protected with wax, caulk, duct tape or similar.

Form Preparation - Epoxy grouts require heavy duty forms. A sheet of 3/4" plywood and proper bracing should be used to hold the force of the weight of the grout (140 lbs/64 kg per cu. ft.) Forms should be coated with a minimum of two coats of an industrial grade paste wax to facilitate removal of forms after cure. Forms should have 45° angle chamfer strips at all vertical corners and horizontal grout grade elevation in order to eliminate sharp corners. Caulk, putty or similar sealant should be used to render the forms "watertight". Forms should be designed to allow for a hydraulic head to facilitate the placement of TK-EPO™ 15K EPOXY GROUT. Expansion joints shall be used every 4 feet in each direction to minimize the potential for cracking in epoxy grout.

MIXING:

TK-EPO™ 15K EPOXY GROUT is shipped in pre measured 0.5 cu. ft. or 2.0 cu. ft. units. Mix these products in complete kits ONLY. DO NOT THIN or add solvents prior to mixing.

0.5 cubic foot Kit Mixing - Components "A" (liquid resin) and "B" (liquid hardener) are packaged in separate containers. Pour both components into a pail and mix thoroughly for 3 minutes using a Jiffy mixer on low speed (300 rpm). Continue mixing until the material is a uniform consistency. *NOTE: Keep the mixer at the bottom of the pail to avoid introducing air into the mix.* Once the liquid components are thoroughly mixed, slowly incorporate component "C" (aggregate) and continue until the aggregate is fully wetted out. Pour mixed grout into forms and apply.

TECHNICAL DATA

Curing Temperature	Working Time	Initial Cure Time
50°F/16°C	4 hours	42 hours
55°F/18°C	3 hours	36 hours
65°F/21°C	2 hours	30 hours
75°F/24°C	1.5 hours	24 hours
85°F/29°C	45 min.	18 hours
95°F/35°C	30 min.	12 hours
100°F/38°C	20 min.	6 hours

Pour Depth*:	Up to 12" w/ proper curing and expansion allowance
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*This product also available in a deep pour formulation for depths exceeding 12"

TESTING DATA

TEST	RESULTS
ASTM C 579 Compressive Strength (75°F):	3,200 psi at 8 hours 6,500 psi at 16 hours 11,000 psi at 1 day 13,000 psi at 2 days 15,000 psi at 3 days 15,000 psi at 4 days 15,000 psi at 5 days 15,000 psi at 6 days 15,000 psi at 6 days 15,000 psi at 7 days 16,000 psi at 7 days (5-bag mix)
ASTM C 579 Compressive Modulus of Elasticity:	2,200,000 psi
ASTM C 579 Compressive Creep (400 psi, 400°F)	< 0.005 in/in
ASTM C 307 Tensile Strength Modulus of Elasticity	2,500 psi 2,100,000 psi
ASTM C 580 Flexural Strength Modulus Elasticity	4,500 psi 2,200,000 psi
ASTM C 882 Bond Strength	3,500 psi
ASTM C 884 Thermal Compatibility	pass
ASTM D 2471 Gel Time Peak Exothermic	180 minutes 110°F
ASTM C 531 Linear Shrinkage on Cure	0.005%
ASTM C 531 Coefficient of Thermal Expansion	16 x 10 ⁻⁶ in/in: °F 14 x 10 ⁻⁶ in/in: °F (standard) 18 x 10 ⁻⁶ in/in: °F 15 x 10 ⁻⁶ in/in: °F (5-bag mix)

2.0 cubic foot Kit Mixing - Components "A" (liquid resin) and "B" (liquid hardener) are packaged in separate containers. Pour contents of component "B" into the pail containing component "A" and mix thoroughly for 3 minutes using a Jiffy mixer on low speed (300 rpm). Continue mixing until the material is a uniform consistency. *NOTE: Keep the mixer at the bottom of the pail to avoid introducing air into the mix.* Once the liquid components are thoroughly mixed, pour into a mortar mixer making certain to thoroughly scrape the sides and bottom of the pail using a spatula or similar tool. Introduce the first bag of component "C" (aggregate) to the mixer prior to starting the mixer. Once the mixer has been started, slowly incorporate the remaining three bags of aggregate and continue mixing only until all aggregate is fully wetted out. **DO NOT OVER MIX.**

APPLICATION:

TK-EPO™ 15K EPOXY GROUT should be poured into forms at one consistent location in order to allow a unidirectional flow. Use of a header box will ease the placement of the finished product. Strict adherence to temperature considerations will assist the placement properties. Check forms frequently for leaks. Plug leaks with a hydraulic cement or putty. TK-EPO™ 15K EPOXY GROUT will not self-seal.

Finishing - When forms are filled to desired elevation, exposed horizontal surfaces of TK-EPO™ 15K EPOXY GROUT may be finished with a surfactant such as Xylol or Toluene and a paintbrush or small hand trowel. Surfactant should be lightly sprayed or misted onto surfaces. **DO NOT PUDDLE ON SURFACE.** This process can be repeated every 30 minutes until surfaces are firm.

Temperature Considerations - Important: Epoxy grouts are temperature sensitive and care should be taken to condition all components (including Component C (aggregate)) to between 65°F - 95°F (18°C - 35°C) for a minimum of 24 hours prior to mixing and placement. Colder temperatures will increase viscosity of resins and will inhibit mixing and flow of grouting materials. Warmer temperatures will decrease viscosity of resins, hasten cure and reduce the working time of the grout. At the completion of the curing cycle, the temperature shall be lowered slowly - by no more than 40°F (4.4°C) in 48 hours - to avoid the possibility of damage due to sudden contraction.

CLEAN UP:

TK-EPO™ 15K EPOXY GROUT is a low exotherm grout. The extended working time allows for easy soap and water cleanup of tools, mixers and work area while the material is in the plastic stage. For materials that have begun to set, Xylol or another approved solvent may be used.

LIMITATIONS:

- For proper performance, applications of TK-EPO™ 15K EPOXY GROUT must employ a minimum of 1" lift (thickness). Application requiring less than this should use TK-EPO™ 19K EPOXY CHOCK.

CONDITIONS OF SALE/ LIMITED WARRANTY

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PRECAUTIONS:

Safety Considerations

- Component "A" - Irritant
- Component "B" - Corrosive
- 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.
- **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. Wash area of contact thoroughly with soap and water.
- **CURED EPOXY RESINS ARE INNOCUOUS.**

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™ 15 EPOXY GROUT is available through TK Distributors. Contact TK Products for the nearest distributor.

Also available in deep pour and pumpable formulations. Contact your TK representative for availability.

Packaged in pre-measured 0.5 cubic foot (0.014m³), and 2.0 cubic foot (0.056m³) kits.

Kit Contents:

-0.5 cubic foot kit: 1-gallon container (component "A") + 1-gallon container (component "B") + 1-55 lb bag of aggregate (component "C")

-2.0 cubic foot kit: 5-gallon container (component "A") + 1-gallon container (component "B") + 4-55 lb bags of aggregate (component "C")

Appearance: Component "A" - Gray, Component "B" - Clear

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-95°F (18°C-35°C) before using.

FOR PROFESSIONAL USE ONLY

05/17 Last Rev. 04/15