



KEY #511 EPOXY BINDER/GLAZE

DESCRIPTION

KEY RESIN #511 is an economical epoxy glaze/binder for slurries, mortars and general coating applications. This resin system is an excellent general purpose material with good clarity. It is essentially odorless and can therefore be used in occupied buildings. **Key Resin #511** provides increased barrier thickness and gives added protection to concrete against chemical and abrasive attack.

KEY ADVANTAGES

- Convenient 2:1 mixing ratio.
- Contributes towards LEED Credit MR-6: Rapidly Renewable Agricultural Content.
- Contains a minimum of 5.36% rapidly renewable content by weight.
- Economical.
- Zero VOC, low odor for use in occupied areas.
- Low viscosity - good wetting properties.
- Available in "fast cure" systems.
- Meets USDA standards for incidental food contact.

KEY CONSIDERATIONS

- Minimum application temperature of 50°F (Contact **KEY RESIN COMPANY** for Low Temperature Cure).
- Substrate must be free of curing agents and any foreign materials.
- On or below grade installation must have an efficient vapor barrier under the slab.
- Special treatments are necessary where moisture vapor transmission may be present. Contact **Key Resin Company** for proper MVT treatments.

COMPOSITION

100% solids amine cured Epoxy Resin.



APPLICATION

SURFACE PREPARATION

Surface Preparation is the most critical portion to any successful resinous flooring system application. All substrates must be properly prepared as outlined in **KEY RESIN COMPANY'S TECHNICAL BULLETIN #1**. Work must be performed by trained or experienced contractors or maintenance personnel. The **KEY RESIN COMPANY** service department is pleased to answer any questions.

INSTALLATION & COVERAGE

Will vary with application method.

PHYSICAL PROPERTIES

Color	Clear
Gloss, 60°F	85-100
Weight/gallon	8.5-9.0 mixed
Solids Content	100%
Mix Ratio	2A to 1B by volume
Pot Life	30-40 minutes @ 70°F
Viscosity	400-600 cps, mixed approx.
VOC Content	0

DRY TIME

10-20 mil film	10-12 hrs.
Light Traffic	16 hrs.
Ultimate Cure @ 74°F	5 days
@ 50°F	14 days

CHEMICAL RESISTANCE

REAGENT	RATING	REAGENT	RATING
Acetic Acid-5%	L	Lactic Acid-15%	R
Acetone	L	Methyl Ethyl Ketone	L
Bleach	L	Nitric Acid-10%	R
Citric Acid-30%	R	Skydrol	R
Crude Oil	R	Sodium Hydroxide-50%	R
Diesel Fuel	R	Sulfuric Acid-20%	R
Ethylene Glycol	R	Toluene	R
Fatty Acids	L	Urea	R
Gasoline	R	Vinegar	L
Hydrochloric Acid-15%	R	Xylene	R

R-Recommended for continuous service.

L-Limited recommendation, occasional spills.

PERFORMANCE PROPERTIES

Tensile Strength ASTM-D-638	8,500 psi
Elongation ASTM-D-638	5.5%
Adhesion to metal	2500 psi
Adhesion to concrete ACI Committee 403	350 psi (100% concrete failure)
Hardness ASTM-D-2240,24 hrs	75-80 (Shore D)
Abrasion Resistance ASTM-C-501	35-40 mg loss (CS-17 wheel, 1 kg load, 1000 cycles)
Service Temperature MIL- D-3134F	160 F (immersion) □ 185 F (dry heat)
Impact Resistance MIL-D-3134F §. 4.7.3	Withstands 16ft./lbs. no cracking, delamination or chipping.
Indentation MIL-D-3134F § 4.7.4	Withstands 2,000 lbs./sq.in. for 30 min. without indentation.
Elevated Temperature Resistance MIL-D-3134F §4.7.5	No slip or flow at required temperatures at 158 F
Water Absorption ASTM-D-670-63 (24. hr. immersion)	0.10% maximum
Flexural Strength ASTM-D-790	8,000 psi
Compressive Strength ASTM-D-695	11,000 psi

WARRANTY

Key Resin Company ("Key") warrants for a period of one (1) year that its products will be free of manufacturing defects and will be in conformity with published specifications when handled, stored, mixed and applied in accordance with recommendations of **Key**. If any product fails to meet this warranty, the liability of **Key** will be limited to replacement of any non-conforming material if notice of such non-conformity is given to **Key** within (1) one year of delivery of materials. **Key** may in its discretion refund the price received by **Key** in lieu of replacing the material. No customer, distributor, or representative of **Key** is authorized to change or modify the published specifications of this warranty in any way. No one is authorized to make oral warranties on behalf of **Key**. In order to obtain replacement or refund the customer must provide written notice containing full details of the non-conformity. **Key** reserves the right to inspect the non-conforming material prior to replacement. EXCEPT FOR THE EXPRESSED WARRANTY STATED ABOVE, THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. **KEY'S** OBLIGATION SHALL NOT EXTEND BEYOND THE OBLIGATIONS EXPRESSLY UNDERTAKEN ABOVE AND **KEY** SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO THE PURCHASER OR ANY THIRD PARTY FOR ANY LOSS, COST, EXPENSE, DAMAGE OR LIABILITY, WHETHER DIRECT OR INDIRECT, OR FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.