

KEY #511 EPOXY

Product Information Sheet



DESCRIPTION

KEY #511 is an economical general purpose epoxy resin for slurries, mortars, broadcast systems and coating applications. This resin has excellent clarity compared to standard epoxy formulations. It is essentially odorless and can therefore be used in occupied buildings. **KEY #511** provides increased barrier thickness and gives added protection to concrete against chemical and abrasive attack. **KEY #511** Part A is available in bulk packaging and may be combined with selected Part B Hardeners for general use as a primer, body/binder coat, or top coat, contact **Key Resin** for details.

KEY ADVANTAGES

- Convenient 2:1 mixing ratio
- Meets USGBC LEED criteria for low VOC
- Zero VOC, low odor for use in occupied areas
- Economical
- Low viscosity - good wetting properties
- Available in "fast cure" formulation
- Part A Resin compatible with various selected hardeners for general use as a primer, body coat, top coat
- Meets USDA standards for incidental food contact

KEY CONSIDERATIONS

- Minimum application temperature of 50°F (Contact **Key Resin** 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** for proper MVT treatments

COLOR SELECTION

KEY #511 is available in Clear and **Key Resin Standard Colors**.

COMPOSITION

100% solids Amine Cured Epoxy Resin.

COVERAGE

KEY #511 coverage rate will vary by application method.

CURE/DRY TIME

Working Life	30-40 minutes @ 70°F
10-20 mil Film	10-12 hrs
Light Foot Traffic	16 hrs
Ultimate Cure @ 74°F	5 days
Ultimate Cure @ 50°F	14 days

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 Technical Bulletin #1**. Work must be performed by trained or experienced contractors or maintenance personnel. The **Key Resin Technical Service Department** is available to answer any questions.

INSTALLATION

Will vary with system and application method.

CHEMICAL RESISTANCE

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

R - Recommended for continuous splash/spill service

L - Limited recommendation (occasional spills, may cause slight stain or discoloration)

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TECHNICAL DATA

Mix Ratio	2 Parts A:1 Part B by Volume
Weight/gal	8.5-9 lbs. Mixed
Solids Content	100%
Volatile Organic Content (VOC) (EPA Method 24)	0 g/L, compliant to low VOC Rule 1113 in all 50 states
Gloss, 60°	85-100
Viscosity	400-600 cps, mixed approx.

AVAILABILITY

Key Resin materials are available throughout the United States, Canada, and a number of other countries. Contact the **Key Resin Representative** in your area for details.

TECHNICAL SERVICE

Key Resin Company provides services and consultations on material selection, specification, troubleshooting, and other information on the proper repair and protection of concrete surfaces. **Key Resin Sales/Technical Representatives** are available to assist you. Telephone 888.943.4532 or visit www.keyresin.com.

PHYSICAL PROPERTIES

Tensile Strength	ASTM D638	8,500 psi
Elongation	ASTM D638	5.5%
Compressive Strength	ASTM D695	11,000 psi
Adhesion to Concrete	ASTM D7294	300-400+ psi (Concrete Failure, varies by concrete strength)
Hardness, Shore D	ASTM D2240, 24 hrs	75-80
Abrasion Resistance	ASTM C501 (CS-17 wheel, 1 kg load, 1000 cycles)	35-40 mg loss
Flexural Strength	ASTM D790	8,000 psi
Indentation	MIL-D-3134J	Withstands 2,000 lbs./sq.in. for 30 min. without indentation
Impact Resistance	MIL-D-3134J	Withstands 16ft./lbs. no cracking, delamination or chipping
Elevated Temperature Resistance	MIL-D-313J	No slip or flow at required temperatures at 158°F
Water Absorption	ASTM D-670-63 (24. hr. immersion)	0.10% maximum

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.