

KEY #472 POLYASPARTIC COATING

Product Data Sheet



DESCRIPTION

KEY #472 is a two component, ultra high solids, extended working time aliphatic polyaspartic polyurea designed to provide high gloss, UV light stable (non-yellowing), high temperature resistance and chemical resistant protection. **KEY #472** is a superior, new generation resin exhibiting fast cure time and excellent stain resistance. **KEY #472** has very low odor and can be applied indoors in occupied areas. **KEY #472** can be used as a clear high gloss finish coating on various **Key Resin Systems**.

KEY ADVANTAGES

- Rapid cure time--recoat in 2-3 hours
- Extended working time--20+ minutes
- Excellent impact resistance
- Chemical and stain resistance
- Excellent UV light resistance
- Low odor for use in occupied areas
- Meets USGBC LEED criteria for low VOC
- Meets USDA requirements
- High temperature resistance to 200°F wet, 250°F dry
- High gloss

KEY CONSIDERATIONS

- Substrate temperature must be a minimum of 35°F with minimum 30% air relative humidity
- Substrate must be properly prepared and free of dirt, waxes, curing agents and other foreign materials
- Do not apply over damp or wet substrates
- 20-25 minute working time; relative humidity levels higher than 50% RH will further decrease working time
- May be thinned up to 5% with MEK, ethyl acetate, or Oxsol 100--thinning is not typically necessary
- Exposure to temperatures above 180°F may cause some loss of gloss but does not affect performance

COLOR SELECTION

KEY #472 is available in Clear only, **DO NOT** use **Key Pigment Packs** unless otherwise approved by Key Resin Technical Service. Factory tint White available as special order at additional cost, contact Key Resin for lead time.

COVERAGE

KEY #472 is typically spread at 125-250 ft²/gallon to yield 6-12 mils. Up to 16 mils is possible in one application but will exhibit a longer cure time to develop full hardness required for heavy traffic. Do not apply >16 mils.

CURE/DRY TIME

Working Life	20-25 minutes @ 75°F, 50% RH
Dry to Touch	2-3 hrs @ 75°F, 50% RH
Recoat *Sanding required if exceeded	2-3 hrs Minimum 24 hrs Maximum*
Light Foot Traffic Wheeled Carts / Cleaning with Liquids	2-3 hrs @ 75°F 24-36 hrs @ 75°F
Heavy Traffic** **Varies by thickness, type of traffic	48-96 hrs @ 75°F

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. Contact **Key Resin Technical Service** with any questions.

MIXING & INSTALLATION

Important: Review detailed mixing and installation instructions document prior to use. Specific application method depends on type of system installed. **Important Note:** It is common to find a white sediment in the bottom of the Part A container, this is a moisture scavenger additive. Premix Part A with a Jiffy mixer to re-suspend this sediment. Any sediment lumps that do not re-dissolve should be filtered with a paint filter. Alternatively, leave any sediment in the bottom of the Part A container that does not re-dissolve with premixing and pour off entire contents of Part A into a separate mixing vessel, leaving behind any thick residue that does not pour out with the resin.

Specific application method depends on type of system installed. After mixing, pour material into a paint pan and apply with a 1/4"-3/8" nap phenolic core roller, followed immediately with thorough cross-rolling. Alternatively pour material on floor in a ribbon and spread with a flat trowel or flat/notched squeegee depending on thickness of application. Typical application is 6-12 mils (125-250 ft²/gallon). Do not exceed 16 mils (100 ft²/gallon) to reduce risk of excess micro air bubbles, visible as white foam. Immediately backroll material gently with a 1/4"-3/8" nap roller. Do not over roll and entrap air. Total application time should take no longer than 20-25 minutes at 75°F, including roll-in time with subsequent batches. Maintain a wet edge, if pouring ribbons, always maintain a leading edge ribbon and pour into ribbon with subsequent material--do not let ribbon run out until reaching a joint or termination point to avoid creating a visible knit line. Roller covers should be changed every 30 minutes to maintain longer working time. Up to 5% solvent (MEK, ethyl acetate, Oxsol 100) may be added at time of mixing to slightly lower viscosity.

CLEAN UP

Clean skin with soap and water. Tools and equipment should be cleaned with xylene or lacquer thinner. Consult Safety Data Sheet (SDS) for safety and health precautions.

COMPOSITION

Two component, catalyzed polyaspartic polymer.

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TECHNICAL DATA

Viscosity @ 75°F	300-500 cps
Mixing Ratio	1 Part A:1 Part B by Volume
Solids Content	95% Solids by Volume
Volatile Organic Content (VOC) (EPA Method 24)	15 g/L, compliant to low VOC Rule 1113 in all 50 states
Weight/gal	8.77 lbs/gal, Mixed

PHYSICAL PROPERTIES

Hardness, Shore D	ASTM D2240	24 hrs 48 hrs 5 days	25-30 35-40 45
Tensile Strength	ASTM D412	3,000 psi	
Elongation	ASTM D412	75% max	
Abrasion Resistance	ASTM D4060 CS-17 Wheel, 1000 cycles	70 mg	

AVAILABILITY

Key Resin materials are available throughout the United States 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.

MAINTENANCE

After completing the application of **KEY #472**, the installer should provide the owner with maintenance instructions. **KEY #472** is easily cleaned with neutral soaps or detergents. Refer to **Key Resin Technical Bulletin #3** and **#3A** for additional recommendations.

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.

CHEMICAL RESISTANCE

REAGENT	RATING
Acetic Acid - 5%	L
Acetone	L
Ammonia Hydroxide - 38%	R
Beer	R
Bleach	L*
Brake Fluid	R
Citric Acid - 30%	R
Citric Acid - 40%	L
Crude Oil	R
Diesel Fuel	R
EEP Solvent	L
Ethanol	L
Ethylene Glycol	R
Fatty Acids	R
Gasoline	R
Hydrochloric Acid - 15%	R
Hydrogen Peroxide - 30%	L
Iodine	L*
Isopropanol	R
Jet Fuel	R
Lactic Acid - 15%	R
Lactic Acid - 50%	R
Methyl Ethyl Ketone	L
Nitric Acid - 10%	R
Orange Juice	R
Phosphoric Acid - 85%	L
Skydrol	R
Sodium Hydroxide - 50%	R
Sulfuric Acid - 20%	R
Toluene	L
Urea	R
Urine	R

R - Recommended for continuous splash/spill service

L - Limited recommendation for 8 hours or less exposure time, requires more frequent cleanup, occasional spills only.

*May cause slight stain or discoloration

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CORPORATE OFFICE / EASTERN US / INTERNATIONAL

4050 Clough Woods Drive . Batavia, OH 45103
513.943.4225 888.943.4532 www.keyresin.com

WESTERN US

4330 N. 43rd Avenue, Suite B4, Phoenix, AZ 85031
602.523.9353