KEY #467-ESD URETHANE SEALER

Product Data Sheet

DESCRIPTION

KEY #467-ESD is a three component, chemical resistant, UV light resistant, ultra high solids, ESD (electrostatic dissipative) clear aliphatic polyurethane coating in satin finish. **KEY #467-ESD** is a low odor urethane that meets all federal and state environmental air quality standards except for SCAQMD counties in CA. The satin finish offers excellent abrasion resistance, chemical and stain resistance. **KEY #467-ESD** will test in the ESD range of $<1x10^9$ ohms electrical resistance conforming with ANSI/ESD S20.20 and is ideal as a finish sealer in electronic component assembly areas, data processing, military/aerospace, pharmaceutical plants, hospitals, and hazardous industries (dust or explosion hazards). For use in any areas where the build-up of static electricity is a concern. Available in clear only, **KEY #467-ESD** can be used as a finish sealer option for most **Key Resin Flooring Systems**.

KEY ADVANTAGES

- Superior abrasion and wear resistance
- Excellent chemical and stain resistance
- Use for numerous types of ESD flooring applications
- Maintains electrical conductivity performance over the wear life of the sealer
- Low odor for use in occupied areas
- Compliant to VOC Industrial Maintenance Coating rules in all 50 states except for SCAQMD counties in CA

KEY CONSIDERATIONS

- Application over Key #511-PRO, FlowResin Protop 1000 or FlowResin Flowcoat SF41 requires sanding or solvent wipe of the polyaspartic or epoxy
- Minimum/maximum application temperature: 50ºF/90ºF
- Minimum/maximum relative humidity: 30%/80%
- Recoating requires sanding prior coat with **Key Tomahawk** pads (or similar pad)–2nd coat will darken underlying color
- Clear only, ESD additive creates a satin finish–do not use Pigment Packs or Satin Additive

COLOR SELECTION

KEY #467-ESD is available in Clear only. ESD filler creates a satin finish and darkens the appearance of the clear resin and will affect color tone of underlying color. Applying a second topcoat will further darken the underlying color. Confirm final appearance with finished samples or apply a small mock-up over existing flooring system.

COVERAGE

KEY #467-ESD Clear will yield 2.4-2.9 mils dry film thickness when spread at 500-600 ft^2 per gallon. **Important: Do not vary significantly from this coverage rate to achieve consistent conductivity readings.**

CURE/DRY TIME

Pot Life (In Mix Pail)	2 hrs @ 75°F, 50% RH
Recoat (grinding/sanding required)	8-10 hrs @ 75°F, 50% RH (depends on weight of grinder used)
General Service (Vehicle)	72+ hrs @ 75°F, 50% RH
Light Service (Foot Traffic)	16-24 hrs @ 75°F, 50% RH
Full Cure & Max. Resistance	5-7 Days @ 75°F, 50% RH

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

Review detailed installation instructions document prior to use.

Mixing: KEY #467-ESD is mixed four (4) parts by volume Part A with one (1) Part B for three minutes with a low to medium speed drill and jiffy type mixer. Continue mixing while adding ESD Additive and mix for 1-2 additional minutes.

Application: KEY #467-ESD is normally applied using a dip and roll procedure with a medium nap mohair roller, followed immediately with thorough cross rolling. Care should be taken to minimize the entrapment of air caused by over-rolling. Apply material within the recommended thickness range of 500-600 ft^2 per gallon. **KEY #467-ESD** must be aggressively sanded with a diamond grit pad or other suitable method prior to application of a second topcoat. **KEY #467-ESD** is a moisture cure urethane, relative humidity will significantly affect cure speed. Refer to Installation Instructions document for important additional details.

For complete installation instructions, contact **Key Resin Technical Service**.

Important: If applying to vertical cove base surface, be careful to avoid runs/puddles as these will create darkened areas.

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

Three component, catalyzed, chemical resistant, moisture cure clear aliphatic polyurethane with conductive filler.

KEY #467-ESD URETHANE SEALER

Product Data Sheet

TECHNICAL DATA

MIxing Ratio	4 Parts A to 1 Part B by Volume + Part C ESD Filler
Solids Content (by volume)	90%
Volatile Organic Content (VOC) (EPA Method 24)	<250 g/L Refer to local VOC Rule for Industrial Maintenance Coating Category

PHYSICAL PROPERTIES

Hardness	ASTM D3363	2H to 3H
Abrasion Resistance	ASTM D4060 CS-17 Wheel 1000 gm. load per wheel	10-20 mgs
Conductivity Resistance	ANSI/ESD-S20.20	<1x10^9 ohms
Static Charge Decay	MIL-B-81705B	Dissipates a 5,000 volt charge to zero in <0.1 seconds

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 #467-ESD**, the installer should provide the owner with maintenance instructions. **KEY #467-ESD** is easily cleaned with neutral soaps or detergents. Refer to **Key Resin Technical Bulletin #3** and **#3A** for additional recommendations.

CHEMICAL RESISTANCE

REAGENT	RATING
Acetic Acid - 5%	L
Acetone	L
Betadine	R
Beer	R
Bleach - 10%*	L*
Brake Fluid	R
Citric Acid - 30%	R
Citric Acid - 40%	L
Crude Oil	R
Diesel Fuel	R
Ethylene Glycol	R
Fatty Acids	L
Gasoline	R
Hydrochloric Acid - 15%	R
Iodine	R
Lactic Acid - 15%	R
Methyl Ethyl Ketone	L
Nitric Acid - 10%*	L*
Orange Juice	R
Peroxide - 35%	R
Phosphoric Acid - 85%	L
Skydrol	R
Sodium Hydroxide - 50%	R
Sulfuric Acid - 20%	R
Toluene	R
Urea	R
Vinegar	L
Xylene	R

R - Recommended for splash/spill service with daily cleanup.
L - Limited recommendation for 8 hours or less exposure time, requires more frequent cleanup, occasional spills only.
*May cause slight stain or discoloration depending on exposure time. Increase in exposure time increases the concentration and reactivity of the reagent.

Refer to Key Resin Chemical Resistance Guide for further information.

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 withp ublished 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.

Rev 11/27/2023 v1.3

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