



KEY #536 ESD/CONDUCTIVE COATING

DESCRIPTION

KEY RESIN #536 is a pigmented, water-based epoxy coating designed to achieve either an electro-static dissipative (ESD) finish or conductive finish by modifying the underlying system components and thickness. **KEY RESIN #536** has very low odor making it suitable for use in occupied buildings and has high bond strength and adhesion to concrete and other surfaces.

KEY ADVANTAGES

- Durable, Attractive, Chemical Resistant, Non-Porous, Light Reflective Finish.
- Low Odor during application and cure.
- Maintains Electrical Conductivity Performance over the Wear Life of the System
- Fast Dry and Re-coat Time.
- Easy Clean-up.
- Provides an ESD finish in the range of 1,000,000 to 1,000,000,000 ohms resistance when used over a non-conductive primer/basecoat or a conductive finish in the range of 25,000 to 1,000,000 ohms resistance when used over a conductive primer/basecoat.

KEY CONSIDERATIONS

- Substrate must be above 50°F and relative humidity below 85% for proper curing.
- Substrate must be free of dirt, waxes, curing agents and other foreign materials.
- Excessive moisture in the substrate will require a moisture vapor control treatment.

TYPICAL USES

Concrete floors and walls in electronic component assembly areas, data processing, military/aerospace, pharmaceutical plants, hazardous industries (dust or explosion hazards). For use in any areas where the build-up of static electricity is a concern or a spark-proof floor is required.

APPLICATION

SURFACE PREPARATION

Surface Preparation is the most critical portion of any successful resinous flooring system application. All substrates must be properly prepared and tested for moisture as outlined in **KEY RESIN COMPANY'S TECHNICAL BULLETIN #1**. Work must be performed by trained or experienced contractors or maintenance personnel.

INSTALLATION

Mix Part B of **KEY #536** prior to combining. Mix 1 part Part A with 2 parts Part B. Roll mixed **KEY #536** at a rate of 200 ft² per gallon per coat with a short nap roller. Care should be taken to avoid puddles. Two coats are necessary to insure uniform coverage. Two typical systems are outlined below. For recommended system thickness and complete installation instructions, contact your **Key Resin Representative** or **Key Resin Technical Service**.

Key #536 High-Build Conductive Epoxy Coating System – 40-45 Mils (25,000-1,000,000 ohms)

<i>Material</i>	<i>Qty./ 1000 ft²</i>	<i>Coverage</i>
1. <i>Key #502 Epoxy Primer</i>	4-5 gallons	200-250 ft ² /gallon
2. <i>Key Conductive Epoxy Slurry</i>	20 gallons	50 ft ² /gallon
3. <i>Key #536 ESD/Conductive Epoxy Coating</i>	5 gallons	200 ft ² /gallon
4. <i>Key #536 ESD/Conductive Epoxy Coating</i>	5 gallons	200 ft ² /gallon

Key #536 Thin-Film ESD Epoxy Coating System – 12-15 Mils (1,000,000-1,000,000,000 ohms)

<i>Material</i>	<i>Qty./ 1000 ft²</i>	<i>Coverage</i>
1. <i>Key #502 Epoxy Primer</i>	4-5 gallons	200-250 ft ² /gallon
2. <i>Key #536 ESD/Conductive Epoxy Coating</i>	5 gallons	200 ft ² /gallon
3. <i>Key #536 ESD/Conductive Epoxy Coating</i>	5 gallons	200 ft ² /gallon

CLEAN-UP

Clean skin with soap and water. Tools and equipment should be cleaned with warm soapy water, xylene or lacquer thinner. Consult Material Safety Data for safety and health precautions.

COMPOSITION

Waterborne Epoxy Resin and Conductive Fillers

COVERAGE

KEY #536, when applied at 200 ft² per gallon, yields 5.2 to 6.0 mils dry film thickness.

TECHNICAL DATA

Viscosity @ 75°F	600-1000 CPS
Mixing Ratio	1 Part A to 2 Parts B by Volume
Solids Content, by volume	50-55%
Volatile Organic Content (VOC)	<20 gm/L
Bond Strength to Concrete	400-500 psi (100% concrete failure)
Weight per Gallon, mixed	8.75-9.00 pounds per gallon, mixed

CURE/DRY TIME

Pot Life	20-30 min.
Dry to touch	6 hours @ 75°F
Recoat	8-24 hours @ 75°F
Light Traffic	24 hours @ 75°F
"H" Hardness	2 days
"5-H" Hardness	30 days

AVAILABILITY

KEY RESIN COMPANY materials are available throughout the United States, Canada, and a number of other countries. Contact the **KEY REPRESENTATIVE** in your area for details.

MAINTENANCE

After completing the application of **KEY RESIN #536**, the installer should provide the owner with maintenance instructions. If floors become slippery due to animal fats, oil, grease, or soap film, remove promptly and rinse thoroughly.

KEY RESIN #536 is easily cleaned with neutral soaps or detergents. Refer to Technical Bulletin #3 for additional instructions. Long periods of heavy traffic may cause wear patterns necessitating a maintenance application of a finish coat. Do not use aggressive non-skid texture or system will not be able to be tested for conductivity after installation.

TECHNICAL SERVICE

KEY RESIN COMPANY and **KRC ASSOCIATES, INC.** provide services and consultations on material selection, specification, troubleshooting, and other information on the proper repair and protection of concrete surfaces. **KEY RESIN REPRESENTATIVES** are available to assist you. **CALL (888) 943-4532** or visit www.keyresin.com.

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.