

# KEY #536-ESD/CONDUCTIVE COATING

## Product Information Sheet



## DESCRIPTION

**KEY #536-ESD/CONDUCTIVE COATING** is a pigmented, water-based epoxy coating designed to achieve either an electrostatic dissipative (ESD) finish or conductive finish by modifying the underlying system components and thickness. **KEY #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, chemical resistant, non-porous, light reflective finish
- Low odor during application and cure
- Meets USGBC LEED criteria for low VOC
- Maintains electrical conductivity performance over the wear life of the system
- Fast dry and recoat 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.

## COLOR SELECTION

**KEY #536** is available in **Key Resin Standard Colors** and custom colors with lab approval, longer lead time and possible added cost. Standard colors will vary slightly from **Key Resin Standard Colors** due to the conductive filler content.

## COMPOSITION

Water-borne epoxy resin and conductive fillers.

## COVERAGE

**KEY #536** when applied at 200 ft<sup>2</sup> per gallon, yields 5.2 to 6.0 mils dry film thickness.

## 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

Mix Part B of **KEY #536** prior to combining. Mix 1 Part A with 2 Parts B. Roll mixed **KEY #536** at a rate of 200 ft<sup>2</sup> per gallon per coat with a short/medium 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 **Key Resin Technical Service**.

### 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.

## CURE/DRY TIME

Working Life	20-30 min. @ 75°F
Dry to Touch	6 hrs @ 75°F
Recoat	8-24 rs @ 75°F
Light Foot Traffic Service	24 hrs @ 75°F

### KEY #536-Conductive – 40-45 Mil (25,000-1,000,000 ohms)

KEY #502 Primer	200-250 ft <sup>2</sup> / gal
KEY Conductive Slurry	50 ft <sup>2</sup> / gal
KEY #536 Coating	200 ft <sup>2</sup> / gal
KEY #536 Coating	200 ft <sup>2</sup> / gal

### KEY #536-ESD – 12-15 Mil (1,000,000-1,000,000,000 ohms)

KEY #502 Primer	200-250 ft <sup>2</sup> / gal
KEY #536 Coating	200 ft <sup>2</sup> / gal
KEY #536 Coating	200 ft <sup>2</sup> / gal

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## TECHNICAL DATA

Mixing Ratio	1 Part A: 2 Parts B by Volume
Solids Content	50-55% Solids by Volume
Volatile Organic Content (VOC) (EPA Method 24)	20 g/L, compliant to low VOC Rule 1113 in all 50 states
Weight/gal	8.75-9.00 lbs/gal, Mixed
Viscosity @ 75°F	600-1,000 cps

## CHEMICAL RESISTANCE

Contact **Key Resin Technical Service**.

## 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](http://www.keyresin.com).

## MAINTENANCE

After completing the application of **KEY #536** the installer should provide the owner with maintenance instructions. **KEY #536** is easily cleaned with neutral soaps or detergents. Refer to **Key Resin Technical Bulletin #3** and **#3A** for additional recommendations.

## PHYSICAL PROPERTIES

Adhesion to Concrete	ASTM D7294	300-400+ psi (Concrete Failure, varies by concrete strength)
Hardness	ASTM D2240	"H" - 2 days "5-H" - 30 days
Conductivity Resistance	ANSI/ESD-S7.1	1x10 <sup>6</sup> to 1x10 <sup>9</sup> ohms
Static Charge Decay	MIL-B-81705B	Dissipates a 5,000 volt charge to zero in <0.1 seconds

## 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.

