



# KEY #520-ESD/CONDUCTIVE

## DESCRIPTION

**KEY RESIN #520-ESD/CONDUCTIVE** is a 100% solids bis-A epoxy floor coating designed to provide electrostatic control properties to various surfaces including concrete or other non-conductive substrates. **KEY #520-ESD/CONDUCTIVE** has good chemical resistance and is ideal for any areas requiring electrostatic dissipative surfaces, provides excellent bond to concrete as well as high impact and wear. Application over a non-conductive primer or basecoat will transmit ESD readings of  $1 \times 10^6$  to  $1 \times 10^9$  ohms through **KEY #520-ESD/CONDUCTIVE**. Application over a conductive primer or basecoat will transmit conductive readings of  $1 \times 10^4$  to  $1 \times 10^6$  ohms through **KEY #520-ESD/CONDUCTIVE**.

## KEY ADVANTAGES

- Good Chemical and Stain Resistance
- 100% Solids—Low Odor Application and Cure (0-VOC)
- High Gloss
- Easy to Clean
- Good Abrasion Resistance
- Consistent Electrical Resistance Readings When Tested at 10-500 Volts
- Tests in the Static Dissipative Range of  $1 \times 10^6$  to  $1 \times 10^9$  ohms per EOS/EDS Standards when applied over Non-Conductive Primer or Basecoat
- Tests in the Conductive Range of  $1 \times 10^4$  to  $1 \times 10^6$  ohms when applied over Conductive Primer or Basecoat
- Dissipates a 5000 Volt Charge to Zero in Less than 0.1 Seconds @ 72° and 12% RH

## KEY CONSIDERATIONS

- Substrate temperature must be a minimum of 55-60°F and maximum of 85°F.
- Relative Humidity should be 30-85% and substrate temperature must be 5°F above the measured dew point.
- Refer to Key Resin Technical Bulletin #1 regarding substrate requirements and surface preparation.
- To achieve Conductive reading: Must be applied in a single coat at 8-10 mils, maximum thickness of 12 mils. Do not exceed 12 mils or reduction of conductivity may result, requiring reapplication of primer/basecoat and Key #520 ESD/Conductive at correct thickness range.
- To achieve ESD reading: Must be applied in a single or multiple coats at 8-12 mils per coat, maximum thickness of 16 mils/coat. Do not exceed 16 mils/coat or reduction of conductivity may result, requiring reapplication of Key #520 ESD/Conductive at correct thickness range.
- Final conductivity testing requires 72 hours cure time to obtain final readings. Key #520 ESD/Conductive applied over conductive primer or basecoat will test in low ESD range prior to 48-72 hours cure at 75°F.

## COMPOSITION

100% Solids, Bis-A Epoxy Resin and Fillers.

## APPLICATION

**Surface Preparation** is the most critical portion of any successful resinous flooring system application. All substrates must be properly prepared as outlined in **KEY RESIN COMPANY'S TECHNICAL BULLETIN #1**. Work must be performed by trained or experienced contractors or maintenance personnel. The **KEY RESIN COMPANY technical service department** is available to answer any questions. Installation of **KEY #520-ESD/CONDUCTIVE** will vary with

application. Typically spread in a single coat at 160-200 sq. ft./gallon with a squeegee and lightly back-roll with a medium or short nap roller. **IMPORTANT:** 12 mils are considered the maximum total thickness for Conductive readings and 16 mils per coat (in single or multiple coats) for ESD readings. Care should be taken to minimize the entrapment of air caused by over rolling. For complete instructions, consult installation guide, your **KEY RESIN Representative** or **KEY RESIN Technical Services**.

## CLEAN-UP

Clean skin with soap and water. Tools and equipment should be cleaned with xylene or lacquer thinner.

## COVERAGE

**KEY #520-ESD/CONDUCTIVE** will yield approximately 8-10 mils when spread at 160-200 sq. ft./gallon.

## COLOR

**KEY #520-ESD/CONDUCTIVE** is available in Key Standard Colors and Custom Colors as approved. Standard colors may vary slightly from Key Resin Standard Color Card due to the conductive filler content.

## TECHNICAL DATA

Viscosity @ 75°F	1,000-1,500 cps
Mixing Ratio by volume	3 Parts A to 1 Part B by Volume
Solids Content by volume	100% by volume
Volatile Organic Content	0
Flammability, ASTM D-635	Self Extinguishing
Hardness, ASTM D-2240	70-80 Shore D
Abrasion Resistance ASTM D-6040	75-100 mgs
Bond Strength to Concrete ASTM D-4541	>300 psi (100% concrete failure) Varies by concrete strength
Impact Resistance ASTM D-2794	100 in-lbs. direct
Pot Life	35-40 min. @75°F
Re-Coat (for ESD only)	14-16 hours @ 75°F
Light Service, Foot Traffic	24 hours @ 75°F
Full Cure & Maximum Resistance	5 days

## CHEMICAL RESISTANCE

Contact **KEY RESIN Technical Service**.

## AVAILABILITY

**KEY RESIN** products are available throughout the United States, Canada and a number of other countries. Contact the **KEY RESIN Representative** in your area for details or visit [www.keyresin.com](http://www.keyresin.com).

## MAINTENANCE

After completing the application of **KEY #520-ESD/CONDUCTIVE**, the installer should provide the owner with maintenance instructions.

**KEY #520-ESD/CONDUCTIVE** is easily cleaned with neutral soaps or detergents. Refer to Key Resin Technical Bulletins #3 and #3-A for additional details.

## 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** and the **KEY RESIN COMPANY Technical Service Department** are available to assist you. CALL (888)943-4532 or visit [www.keyresin.com](http://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.**