

# LOCTITE EDAG 550 E&C

June 2017

## PRODUCT DESCRIPTION

LOCTITE EDAG 550 E&C provides the following product characteristics:

<b>Technology</b>	Acrylic
<b>Appearance</b>	Gray
<b>Filler Type</b>	Nickel
<b>Diluent</b>	LOCTITE SB-1 E&C or LOCTITE SB-10 E&C, depending on substrate
<b>Cure</b>	Heat cure
<b>Operating Temperature-Maximum</b>	149°C
<b>Product Benefits</b>	<ul style="list-style-type: none"> <li>Conductive</li> </ul>
<b>Application</b>	Conductive Ink
<b>Typical Assembly Applications</b>	EMI shielding of plastic cabinetry used in electronic equipment

LOCTITE EDAG 550 E&C conductive coating is formulated to provide long term shielding and grounding properties against electro-magnetic interference (EMI). When diluted with the proper solvent, LOCTITE EDAG 550 E&C can be easily applied by spray onto plastics commonly used in electronic equipment cabinet assembly. This product can also be overcoated by decorative top coatings with minimum affect on the shielding and decorative coating properties.

## TYPICAL PROPERTIES OF UNCURED MATERIAL AS SPRAYED

Solids Content by Weight, %	59.5
Density, kg/l	1.62
Viscosity, Brookfield, mPa·s (cP):	
Spindle 4, speed 20 rpm	7,500
Theoretical coverage @ 25µm, m <sup>2</sup> /kg	6.39
Shelf Life @ 32°C (from date of manufacture), days	730
Flash Point - See SDS	

## TYPICAL DRYING CYCLE

### Recommended Dry Film Thickness

Dry Film Thickness, µm	51 to 63.6
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### Recommended Drying Cycle

16 hours air dry @ 60 to 71°C

### Percent Volatiles

VOC, g/l	656
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The above profiles are guideline recommendation. Conditions (time and temperature) may vary based on customers' experience and their application requirements, as well as customer drying equipment, oven loading and actual oven temperatures.

## TYPICAL PROPERTIES OF CURED MATERIAL

### Physical Properties

Attenuation @ 2 mils, dB	60 to 65
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### Electrical Properties

Resistivity, ohms/sq/mil	0.9
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## GENERAL INFORMATION

For safe handling information on this product, consult the Safety Data Sheet, (SDS).

## DIRECTIONS FOR USE

### Surface Preparation

- Surfaces to be coated must be clean, dry and free of dust.

### Mixing/Dilution

- Thoroughly mix in a paint shaker before use.
- LOCTITE EDAG 550 E&C is a slow/soft settling material. Mixing time can be substantially reduced when compared to conventional nickel coating.
- For proper dilution, use a ratio of 1 : 0.8, product : solvent by volume.

### Application

- LOCTITE EDAG 550 E&C should be applied by spray using conventional propeller agitated pressure pot spray systems.
- Small prototype runs may be sprayed with well-mixed product, using suction cup spray equipment.
- A nominal 51 to 63.6 µm dry coating thickness is recommended for good shielding performance. However, a thinner coating may be acceptable, depending on the shielding requirements of the device being protected.
- Avoid dry spraying for maximum adhesion and conductivity.
- During humid days, the addition of no more than 6 fluid ounces per gallon of diacetone alcohol or butyl alcohol to LOCTITE EDAG 550 E&C will eliminate blushing. The blushing is characterized by a white tint to the dried surface.

### Drying

- LOCTITE EDAG 550 E&C dries to touch in about 5 minutes; to handle in approximately 30 minutes, depending on ambient temperature and coating thickness.
- The product may be force dried beginning with a 20-minute flash-off, then 30 minutes at 60° to 71°C.

**Mask Cleaning**

- For high volume production where masks are used to prevent coating certain areas, the masks can be cleaned with lacquer thinner or ketone solvents.

**STORAGE:**

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Store in a cool, well ventilated area.

**Optimal Storage : 32 °C**

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

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**Conversions**

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$   
 $\text{kV/mm} \times 25.4 = \text{V/mil}$   
 $\text{mm} / 25.4 = \text{inches}$   
 $\text{N} \times 0.225 = \text{lb}$   
 $\text{N/mm} \times 5.71 = \text{lb/in}$   
 $\text{psi} \times 145 = \text{N/mm}^2$   
 $\text{MPa} = \text{N/mm}^2$   
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$   
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$   
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$   
 $\text{mPa}\cdot\text{s} = \text{cP}$

Reference 1

# Mouser Electronics

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