

# Loctite Edag 154 E&C

## RESISTANCE COATINGS AND IMPREGNANT (KNOWN AS Electrodag 154)

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### DESCRIPTION

**LOCTITE Edag 154 E&C (known as Electrodag 154)**, a specially processed colloidal graphite dry film lubricant, air dries rapidly at room temperature and adheres tenaciously to most substrates with minimum surface preparation. The thinness of the coating, coupled with high lubricity, provides clean, long-wearing lubrication without redesign of component dimensions. Coatings are easily applied during manufacture or assembly by standard spray, brush, or dip techniques.

**LOCTITE Edag 154 E&C** is also an easy-to-apply resistance coating designed to provide conductivity, and excellent release properties to many nonconductive substrates, including most plastics.

**LOCTITE Edag 154 E&C** has been specified throughout the electronics industry in a multitude of roles. It can easily be blended with BONDERITE L-GP M 210 ACHESON (known as Molydag® 210) (molybdenum disulfide insulating coating) to attain cost effective sheet resistance variations.

FEATURES	BENEFITS
<ul style="list-style-type: none"><li>• Ultra-thin opaque film forming properties</li><li>• Excellent adhesion to most substrates</li><li>• Fast air-cure times</li><li>• Ability to vary conductivity</li></ul>	<ul style="list-style-type: none"><li>• High lubricity for tight tolerances of mating parts</li><li>• Allows for a variety of parts to be processed with the same coating, saving on costs</li><li>• Allows for a variety of parts to be processed with the same coating, saving on costs</li><li>• Multi-purpose application for conductive effect on the part</li></ul>

### TYPICAL APPLICATIONS

- Automotive and industrial gaskets
- Anti-seize thread lubricant
- Aerosol lubricant additive
- Printed circuits, static bleed
- Engine components for assembly and break-in requirements
- Mating surfaces of assemblies and machinery components
- Low noise communication cables
- High resistance coating on plastics
- Impregnation of fibers and paper

### TYPICAL PROPERTIES (of wet product)

Color:	Gray
Pigment:	colloidal graphite
Binder:	Thermoplastic resins
Carrier:	isopropanol
Diluent:	isopropanol (or other commercial alcohols, esters, and ketones)
Consistence:	fluid
Density:	0.90 kg/l (7.5 lb/gal)



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Solids content by weight: 19.8 – 20.2%  
Flashpoint: 11°C (52°F)  
VOC: 710 g/l (5.9 lb/gal)  
Theoretical coverage: 9.3 m<sup>2</sup>/kg @ 25 µm (340 ft<sup>2</sup>/gal @ 1 mil)

**TYPICAL PROPERTIES** (as cured)

Color: gray  
Coefficient of friction: 0.19 static  
Service temperature – continuous: 204°C (400°F):  
Sheet resistance: < 2400 ohms/sq @ 25 µm (1 mil) dry film thickness

**METHOD OF USE Surface Preparation**

Substrates to be coated must be clean and dry. A solvent wipe with air dry is sufficient for smooth surfaces. For porous surfaces, use the same procedure followed by heating to drive off entrapped contaminants, solvents or moisture.

**Mixing/Blending/Dilution**

**LOCTITE Edag 154 E&C** is supplied in concentrated form. Preparation involves thorough agitation of the concentrate by paint shaking, rolling, or mechanically mixing with a non-electrical mixer. Verify uniformity by checking container bottom. Then dilute and mix with isopropanol (or equivalent) to the consistency required by the application method chosen.

**LOCTITE Edag 154 E&C** can be applied by brush, dip, roller, or spray. Always agitate thoroughly just prior to use.

Typical film thickness ranges from 0.2 to 0.5 mil (5–12 microns). A coating thickness of 1 mil (25 micron) of **LOCTITE Edag 154 E&C** is best built up by the application of 5 coats of 0.2 mil thickness by spray application. Dilution of 1 part by volume product to 3 parts by volume of isopropanol or equivalent solvent is necessary to obtain an adherent coating of this thickness.

**Application**

For small production work and prototypes, a suction cup gun may be used, if **LOCTITE Edag 154 E&C** is thoroughly mixed prior to spray application. For intermediate production runs or many small parts, propeller-type attachments should be used on the suction gun to ensure coating uniformity. Full production is best handled with propeller-agitated pressure pot systems, which provide the best in application efficiency.

**Note:** Handle **LOCTITE Edag 154 E&C** as you would a quality automotive coating. AVOID DRY SPRAY, as this will cause poor adhesion. To reduce overspray, use the minimum atomization pressure required for adequate coverage.

**Curing**

The coating air dries to touch in 5 minutes and is ready for use in 30 minutes. Following the air dry, bake for 5 minutes at 75°C (167°F) to achieve optimum coating qualities in a shorter curing cycle.



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### STORAGE/ HANDLING

Shelf life for this product is 1 year from date of qualification under original seal. Keep from freezing. Keep container tightly closed when not in use. Store in a cool, well ventilated area. Keep away from heat, sparks, and open flame. Protect material from direct sunlight. Ground and bond containers when transferring materials. Empty containers may retain hazardous properties. Follow all SDS/label warnings even after container is emptied.

Acheson's Application Specialists are available to assist you in production start-up with **LOCTITE Edag 154 E&C**. Visit our website

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