



# PRODUCT DATA SHEET

LC-E221

**250° Curing Flame  
Retardant Epoxy Film Adhesive**

### Description

LC-E221 is a 250°F (121°C) flame retardant epoxy film adhesive specifically designed for bonding metal to metal or metal to various core materials.

### Advantages

LC-E221 demonstrates excellent adhesion and toughness throughout various cure cycles using both press and vacuum bag curing. LC-E221 exhibits excellent resistant's to humidity as well as a variety of test fluids. LC-E221 can also be supplied both supported and unsupported in multiple weights and thicknesses. This material is self-extinguishing per FAR 25.853.

### Physical Properties

Density: 1.2 G/cm<sup>3</sup> per ASTM D792  
Gel Time @ 275°F (135°C): 4 -6 minutes  
Tg: 230°F (110°C)  
Color: Cream  
Tack: Medium

### Shelf Life/Out Life/Storage

Shelf Life: 6 months from Certification Date  
Out Life: 14 days @ 70°F (21°C)  
Storage Temp: 6 months @ 40° F or below

### Processing/Cure Cycle Recommendations

LC-E221 can be processed at temperatures from 235°F (113°C.) for 90 minutes to 290°F (143°C.) for 40 minutes. A 250°F (121°C) cure for 60 minutes is optimal in most cases using press, vacuum bag or autoclave.

Mechanical Properties				
Property	Tested per Specification	-67 °F	R.T. (75 °F)	180 °F
Tensile Shear (psi)	MMM-A-132	3900	4600	3500
Sandwich Peel Strength (inch lbs. / 1" width)	Mil-A-25463	11.2	15.1	15.3
Flatwise Tension (psi)	Mil-A-25463	1100	1300	900
Flexural Strength (lbs)	Mil-A-25463	2100	2400	2000

\*Tests performed using LC-E221M (supported) .060 psf, press cured @ at 250°F (121°C), 25 psi pressure.

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