



TECHNICAL DATA SHEET

TDS# 2627

DATE: JUNE 2013

BACON INDUSTRIES

THERMALLY CONDUCTIVE ADHESIVE LCA-127

Adhesive LCA-127 is a thermally conductive, electrically insulating epoxy adhesive. It has a paste consistency and will not run from vertical surfaces.

RECOMMENDED MIXING AND HANDLING PARAMETERS

Adhesive	LCA-127
Activator	BA-49
Parts by weight of activator required per hundred of adhesive	3.83
Consistency	Thixotropic paste (>4000 poise)
Work life at 77°F, minutes	150
Tack-free time at 77°F, hours	7
Recommended cure ¹ , minutes/°F	30/200

TYPICAL PROPERTIES OF CURED ADHESIVE:

Color	Black
Specific Gravity	2.32
Hardness, Shore D	95
Lap Shear Strength to aluminum, psi	
at -65°F	2300
at 77°F	2300
at 150°F	2400
at 200°F	900
Thermal Conductivity (ASTM F433) Btu-in/hr-ft ² -°F	
at 104°F	8.7
at 250°F	8.3
Coefficient of Linear Thermal Expansion (ASTM E831), 10 ⁻⁶ /°F	
between -65°F and 77°F ¹	15
between 77°F and 150°F	22
between 77°F and 212°F	34
ASTM Heat Distortion Temperature (264 psi), °F	170
Glass Transition temperature ¹ , °F	
by DSC	170
by TMA	142
Flexural Strength, psi	12,700

(over)

Flexural Modulus, 10 ⁶ psi	1.5
Water Absorption, 7 days at 77°F, %	0.11
Flammability (ASTM D635)	
Average Time of Burning, sec	125
Average Extent of Burning, mm	15
Dielectric Constant at 1 kHz	
at 77°F	5.87
at 150°F	6.23
at 200°F	7.49
Dissipation Factor at 1 kHz	
at 77°F	0.008
at 150°F	0.008
at 200°F	0.042
Volume Resistivity, ohm-cm	
at 77°F	9x10 ¹⁵
at 150°F	2x10 ¹⁴
at 200°F	9x10 ¹⁰

NOTES:

- After a cure of 48 hours at 75°F, this system has the following properties:

Coefficient of Linear Thermal Expansion	
between -65°F and 77°F, 10 ⁻⁶ /°F	15
Glass Transition Temperature, °F	
by DSC	103
by TMA	92

INSTRUCTIONS FOR USE:

Mix, at room temperature, 100 parts by weight of Adhesive LCA-127 with 3.83 parts by weight of Activator BA-49. Mix well until uniform in consistency. Apply and cure for 30 minutes at 200°F.

FOR INDUSTRIAL USE ONLY! WARNING!!

These materials may cause injury to the skin following prolonged or repeated contact. Use with adequate ventilation. Activator BA-49 is an aliphatic amine and may cause skin burns and eye injury. In case of contact, flush immediately with plenty of water. For eyes, seek medical attention.

SHELF LIFE:

The shelf life of these materials are greater than two years when stored in unopened containers at an average temperature below 85°F.

AVAILABILITY:

Adhesive LCA-127 is available in quart and in One-Shot kits (see Data Sheet 2011 and 2201), as well as pre-mixed and frozen in Freeze-Paks (see Data Sheet No. 2031).