



TECHNICAL DATA SHEET

TDS# 2505
DATE: JUNE 2013

BACON INDUSTRIES

LOW EXPANSION ADHESIVE LCA-4LV

Adhesive LCA-4LV is a highly filled gyro grade epoxy adhesive having a low coefficient of thermal expansion, good dimensional stability and excellent chemical resistance. It is useful in applications requiring bonding or hermetic sealing of metal, ceramic, glass and other substrates.

Compared to Adhesive LCA-4 (see Data Sheet No. 2504), Adhesive LCA-4LV is less viscous, has a longer working life and generally requires additional cure time to develop similar properties.

RECOMMENDED MIXING AND HANDLING PARAMETERS

Adhesive	LCA-4LV
Activator	BA-5
Parts by weight of activator required per hundred of adhesive	4.50
Viscosity of mixed adhesive, poise	
at room temperature	3000
at 160°F	100
Work Life at room temperature, minutes	100
Pot Life (tack-free time) at room temperature, minutes	240

TYPICAL PROPERTIES OF CURED ADHESIVE:

	Cure		
	2 hr at 200°F	8 hr at 200°F	1 hr at 140°F + 48 hr at 160°F
Specific Gravity (ASTM D792-A)	1.86	1.86	1.86
Color ¹	Lt Green	Lt Green	Lt Green
Hardness (ASTM D1706), Shore D	91	92	92
Lap Shear Strength to aluminum (ASTM D1002), psi			
at -65°F	2300	2600	2200
at 77°F	2300	2500	2000
at 200°F	2300	2500	2100
Flexural Strength (ASTM D790), psi	12000	12000	10000
Young's Modulus in Flexure (ASTM D790), 10 ⁶ psi	1.6	1.6	1.6
Glass Transition temperature			
by Dif. Scanning Calorimetry, °F	176	217	199
by Thermal Mech. Anal., °F	175	199	178
Coeff. of Linear Therm. Exp. (ASTM D831-A), 10 ⁻⁶ /°F			
between -65°F and 80°F	15	15	16
between 80°F and 135°F	22	20	21
between 250°F and 300°F	63	66	60

(over)

