



SOLUTION L&L Bond

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# **L-9009** FST Foaming Adhesive Technology.





Ilproducts.com

# **L&L Products**

### **Product Description**

L&L Products' foaming adhesives have been developed for a range of honeycomb core finishing operations. In addition to core splicing they can be readily used for edge close out and radius enhancement.

Different formulations are available to provide full compatibility with the processing methods (autoclave, oven and press) and the cure cycles used in the manufacture of aircraft interiors. Depending on the cure schedule chosen, L-9009 will expand up to 120%.

L&L foaming adhesives are available in both sheet form and as extruded beads.

It can be supplied in various material shapes. The standard format is in sheets of 560 mm x 300 mm x 1.27mm but it can also be cut into strips.

### **Key Product Attributes**

- Airbus qualified material (AIMS 10-02-004 and DAN 1188)
- FST regulations compliant FAR 25,853, ABD0031
- Lightweight
- · Smooth curing, reduced post processing machining
- · Thermo-foaming materials
- · Multiple final densities available
- Compatible with a broad range of honeycombs, phenolic and epoxy prepregs
- Pressure sensitive adhesive

### **Typical Application Areas**

- Core splicing
- Edge close out
- Local edge reinforcement
- Radius enhancement

## **L&L Products**

### **Technical Data**

The following information and data should be considered typical and should not be used for specification.

		Cure Cycle	L-9009	Test Method
Physical Properties	Color		Grey	
	Uncured Density		1.25 g/cc	
	Final Density	Autoclave at 125°C [257°F]	0.90 g/cc [56 lbs/ft <sup>3</sup> ]	
	Final Density	12 min at 160°C [320°F]**	0.56 g/cc [35 lbs/ft <sup>3</sup> ]	
	Slump	Autoclave at 125°C [257°F]	0.5 mm	DIN EN 2667-4
	Volatiles	12 min at 160°C [320°F]	<1.5%	DIN EN 2558
	Expansion	Autoclave at 125°C [257°F]	70%	DIN EN 2667-3
	Expansion	12 min at 160°C [320°F]	120%	
Mechanical Properties	Compressive Strength at 23°C [75°F]	Autoclave at 125°C	19 MPa [2,750 psi]	ISO 604
	Compressive Modulus at 23°C [75°F]	Autoclave at 125°C	0.63 GPa [91.4 ksi]	
	Tube Shear at 23°C [75°F]	Autoclave at 125°C	9 MPa [1,305 psi]	DIN EN2667-2
	Tube Shear at 85°C [185°F]	Autoclave at 125°C	8 MPa [1,160 psi]	
Fire Properties	Vertical Burn 60 s		Pass	FAR 25.853(a), App. F part I(a)(1)(i)
	Smoke Density		Pass	FAR 25.853(d) App. F part V(b)
	Smoke Toxicity		Pass	AITM 3.0005

\*\* Hot in / hot out: 12 min at 160°C [320°F]

### **Optimal Curing Cycles**

Press Cure: 160°C (320°F) for 15 min.

Other curing cycles: please contact us (expansion rate can vary depending curing cycle).

#### Shelf Life & Storage Conditions

**Shelf Life:** 2 years from date of manufacture when stored at  $-18^{\circ}C$  (0°F) or below. 10 days at room temperature.

Handle with care at low temperature as the material can be brittle. Before use, let the material reach room temperature in its sealed packaging to avoid moisture uptake. Best handling around room temperature.

#### Health & Safety

Consult product specific Safety Data Sheet.

All of our products are developed with REACH compliance.

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