

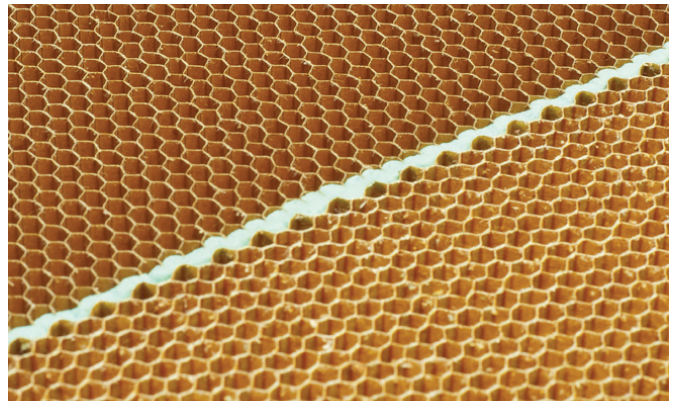
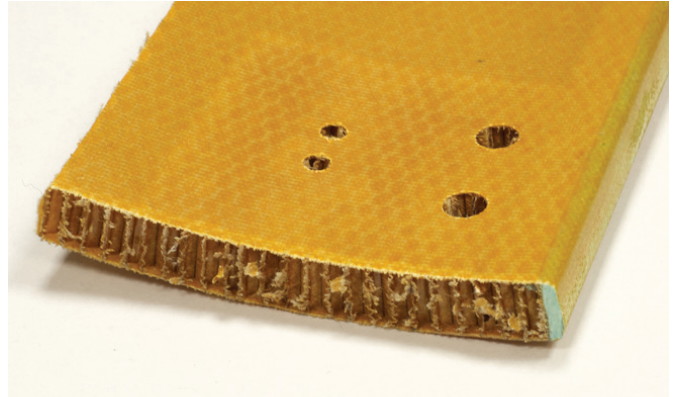
L-9013

FST Foaming Adhesive Technology

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-9013 will expand up to 500%.

L&L's foaming adhesives are available in both sheet form and as extruded beads. The sheet material can be supplied in thicknesses from 1 to 10 mm (0.05 in. – 0.4 in.). The extruded material is available in round or square cross sections in order to more accurately meet any specific geometry parameters. Their tacky nature means that no additional adhesive is required to pre-bond to the honeycomb.



Key Product Attributes

- 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
- Void filling

Technical Data

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

TYPICAL PROPERTIES				
		Cure Cycle	L-9013	Test Method
Physical Properties	Color	—	Blue	
	Uncured Density	—	1.2 g/cm ³	
		—	77 lbs/ft ³	
Mechanical Properties	Expansion	120°C - 175°C (250°F - 350°F)	up to 500%	
	Compressive Strength (RT)	20 min@120°C	8.3 MPa	ASTM D695
		20 min@250°F	1,200 psi	
	Compressive Modulus (RT)	20 min@120°C	0.25 GPa	ASTM D695
		20 min@250°F	36.3 Ksi	
	Tube Shear (RT)	60 min@125°C	7 MPa	DIN EN2667-2
60 min@257°F		1,015 psi		
Fire Properties	Vertical Burn 60 s	60 min@125°C	Pass	FAR 25.853 App F Part 1 (a)(i)
		60 min@257°F	Pass	
	Smoke Density	60 min@125°C	Pass	FAR 25.853 App F part V (b)
		60 min@257°F	Pass	
	Smoke Toxicity	60 min@125°C	Pass	AITM 3.0005
		60 min@257°F	Pass	
Qualifications	—	—	CDM212-00 HMS-A1-001	-

Optimal Curing Cycles

- Autoclave: 140°C (280° F) for 60 min with 3°C / min ramp up.
- Crush Core: 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 or below -6°C (21°F).
- 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.

The information contained herein is, to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty, or guarantee is made regarding its accuracy, reliability, or completeness by L&L Products or any of its affiliates. It is the responsibility of the user to assure the suitability and completeness of such information and any depicted product for the particular use of the user. L&L Products and its affiliates accept no liability for any loss or damage that may occur from the use of this information or any depicted product. L&L Products and its affiliates specifically and expressly disclaim any and all warranties, express or implied, including warranties of merchantability, fitness for a particular purpose, and freedom from claims of infringement of the rights of others associated with the sale or use of any product depicted. L&L Products and its affiliates further disclaim any liability for consequential or incidental damages of any kind, including lost profits.