



SOLUTION
L&L Bond

VERSION
March 2021

L-9107

Aircraft Interior ambient cure FST adhesive.



PRODUCT DESCRIPTION

L&L Bond L-9107 is an FST (Fire, Smoke, and Toxicity) compliant interior adhesive and it has been developed to bond various substrates (metal, thermoplastics, thermosets and composites) that are common to the aerospace industry.

This two-component, epoxy adhesive cures at room temperature and provides high performance bonding.

Designed for interior applications, it meets the latest FAA fire regulations (vertical burn, smoke density and toxicity).

L-9107 is designed to have a 15 minutes gel time at room temperature to fit short process cycle times.

It can be supplied in twin-barrel cartridges, pails or drums.

Key Product Attributes

- FST regulation compliant - FAR 25.853, ABD0031
- High mechanical bonding
- Can be used in a wide range of temperatures
- Capable of multi-material bonding

Typical Application Areas

- Panel assembly
- Insert bonding
- Bracket bonding

Bonding Time	at 23°C [73°F]	at 65°C[150°F]
Open Time (ISO 10364 §)	15 minutes	< 1 minute
Fixture Time (1 MPa [145 psi] lap shear strength)	90 minutes	2 minutes
Fixture Time (2 MPa [290 psi] lap shear strength)	110 minutes	4 minutes
Full Cure	5 days	15 minutes

Technical Data

	L-9107 Part A	L-9107 Part B	Test Method	
Physical Properties	Color	Off-white	White	
	Viscosity	118 Pas	250 Pas	Brookfield, Spindle 7, 2 RPM (25°C)
	Density	1.19 g/cc	1.36 g/cc	
	Mix ratio by volume	2	1	
	Mix ratio by weight	100	57	
	Mixed Density	1.24 g/cc		
	Service Temperature	-55°C to 135°C (-67°F to 275°F)		
Mechanical Properties	Lap Shear Strength on Al at -55°C [-67°F]	21 MPa [3,045 psi]		
	Lap Shear Strength on Al at 23°C [75°F]	27 MPa [3,916 psi]		
	Lap Shear Strength on Al at 85°C [185°F]	18 MPa [2,600 psi]		
	Lap Shear Strength on Al at 120°C [250°F]	6 MPa [870 psi]	EN 2243-1 / Surface treatment ¹	
	Lap Shear Strength on Al at 135°C [275°F]	4 MPa [580 psi]		
	Lap Shear Strength on Al after aging 1000 hours at 70°C [158°F] with 85% RH	23 MPa [3,330 psi]		
	Lap Shear Strength on CFRP at 23°C [75°F]	18 MPa [2,600 psi]		
	Peel Strength on Al at 23°C [75°F]	100 N/25mm [23 lbs/in]	EN 2243-2 / Surface treatment ¹	
Fire Properties	Vertical Burn 12 s (6.35mm) [1/4 in]	<50 mm [2 in]	CS25 App. F Part. I §(a)(1)(ii)	
	Vertical Burn 12 s (125µm + 25 µm Al)	<120 mm [5 in]		
	Smoke Density (125µm + 25 µm Al)	37 DS	FAR 25.853 (d) App. F Part V	
	Smoke Toxicity (125µm + 25 µm Al)	Compliant	AITM 3.0005 (Issue 2)	

1. Acid etching: ISO 17212 / DIN 53281 2. Sanding and cleaning with acetone

Shelf Life & Storage Conditions

Best results within 2 years if stored between 10°C and 30°C [50°F and 85°F] in original packaging.

Long term exposure to elevated temperature can cause the material to lose performance characteristics. Keep away from direct sunlight and all sources of heat and ignition.

If Part A crystallizes on storage, it can be restored to its original condition by warming the cartridge at 65°C [149°F] for 20 minutes.

Surface Preparation

The substrate must be clean, dry, and free of dust. Clean surfaces using a general purpose industrial organic solvent. It may be necessary to use an additional surface preparation product (e.g. surface sanding, acid etching for aluminum or primer for thermoplastics) for optimal adhesive behavior.

Bonding Process

Parts should be fixtured and in final position before the expiration of the gel time and should remain in position unstressed and undisturbed until the end of the fixture time has passed.

Note that gel time and fixture time are heavily influenced by temperature. Warm temperatures shorten gel times, and cooler temperatures lengthen fixture times. The application temperature for the adhesive and parts should be between 15°C and 30°C [60 and 85°F].

Health & Safety

Consult product specific Safety Data Sheet.

All of our products are developed with REACH compliance substances and not CMR classified.