

L-9107

Aircraft Interior Ambient Cure FST Adhesive

Product Description

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, toughened 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

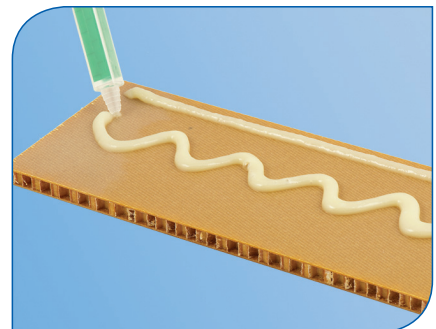
- Panel assembly
- Insert bonding
- Bracket bonding

Bonding Time

	AT 23°C [73°F]	AT 65°C [150°F]
Gel Time (ISO 10364 §6.2)	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

Shelf Life & Storage Conditions

- Best results within 1 year if stored between -10°C and 30°C [14°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.



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

TYPICAL PROPERTIES				
		L-9107		Test Method
		Part A	Part B	
Physical Properties	Appearance	Off-white	White	-
	Viscosity	118 Pa.s	250 Pa.s	Brookfield Spindle 7.2 rpm
	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	Tensile Strength on Al at -55°C [-67°F]	21 MPa [3,116 psi]	
Tensile Strength on Al at 23°C [75°F]		27 MPa [3,116 psi]		EN 2243-1 / Surface treatment: ¹
Tensile Strength on Al at 85°C [185°F]		18 MPa [2,600 psi]		EN 2243-1 / Surface treatment: ¹
Tensile Strength on Al at 120°C [250°F]		6 MPa [870 psi]		EN 2243-1 / Surface treatment: ¹
Tensile Strength on Al at 135°C [275°F]		4 MPa [580 psi]		EN 2243-1 / Surface treatment: ¹
Tensile Strength on Al after aging 1000 hours at 70°C [158°F] with 85% RH		23 MPa [3,330 psi]		EN 2243-1 / Surface treatment: ¹
Tensile Strength on CFRP at 23°C [75°F]		18 MPa [2,600 psi]		EN 2243-1 / Surface treatment: ²
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]		FAR 25.853 (a) App. F Part I §(b)(1)(2)(3)(4)
	Vertical Burn 12 s (125µm + 25 µm Al)	<120 mm [5 in]		FAR 25.853 (a) App. F Part I §(b)(1)(2)(3)(4)
	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)

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.

¹ : Acid etching: ISO 17212 / DIN 53281

² : Sanding and cleaning with acetone

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.

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