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TECHNICAL DATA SHEET

SOLUTION
L&L Bond

VERSION
January 2022

L-0010
Aircraft Structural Adhesive.

PRODUCT DESCRIPTION

L-0010 structural adhesive has been developed to bond various substrates (metal and composites) that are common to the aerospace industry. These one component adhesives provide a structural bond once activated by heat.

This adhesive is intended for applications that require high-strength, high toughness, stable physical properties over a broad application temperature range and demanding aging conditions.

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Key Product Attributes

- Heat activated, epoxy-based material
- High toughness
- Applicable without primer
- Manual or robotic application
- Vertical burn test (60 sec.) compliant

Typical Application Areas

- Coated and uncoated steel
- Aluminum alloy
- Composites

Technical Data

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

		L-0010		Test Method
Physical Properties	Color	Off white to light gray		
	Density	1.3 g/cc		
	Viscosity	360 Pas		
	Glass Transition Temperature	133°C		
	Shelf Life at 23°C [75°F]	3 months		
	Processing	Manual / mechanical gun		
Mechanical Properties	Tensile Modulus	1.96 Gpa [284 ksi]		
	Strain-to-Failure	17%		
	Lap Shear Strength	**On Aluminum 2024**	**On Steel EZ**	**Test Method**
	At -30°C [-22°F]	30 MPa [4,350 psi]	37.6 MPa [5,455 psi]	EN2243-1
	At 0°C [32°F]	28.7 MPa [4,191 psi]	35.7 Mpa [5,185psi]	
	At 23°C [73°F]	27.8 MPa [4,040 psi]	30.7 Mpa [4,449psi]	
	At 70°C [158°F]	27.2 MPa [3,946 psi]	22 Mpa [3,191psi]	
	At 90°C [194°F]	20.6 MPa [2,993 psi]	37.6 MPa [5,455 psi]	
	Wedge Impact	**Dynamic Resistance to Cleavage**	**Cleavage Energy**	**Test Method**
	Al / -40°C [-40°F] [1]	9 N/mm [108 lbs/in]	5.36J [3.95 ft/lbs]	ISO 11343
	Al / 23°C [73°F]	33 N/mm [188 lbs/in]	10.55J [7.79 ft/lbs]	
	Al / 90°C [194°F]	28 N/mm [160 lbs/in]	9.68J [7.35 ft/lbs]	
	Steel EZ / -40°C [-40°F]	17 N/mm [97 lbs/in]	4.50J [3.32 ft/lbs]	
	Steel EZ / 23°C [73°F]	28 N/mm [160 lbs/in]	8.69J [6.41 ft/lbs]	
	Steel EZ / -40°C [-40°F]	28 N/mm [160 lbs/in]	10.11J [7.46 ft/lbs]	

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Product Application

Parts should be mated in final position and remain in position unstressed & undisturbed until the material is sufficiently current to support the bonded parts without movement.

Uncured material is also soluble in the following solvents: Ethyl lactate, Xylene, Methyl ethyl ketone, Methyl amyl ketone, Cyclohexanone.

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 or mechanical process.

Recommended Application Temperature

23°C to 50°C for manual application
40°C to 50°C for robotic application

Shelf life & Storage Conditions

Shelf life:
Best results within 3 months if stored below 30°C (14°F and 85°F) in original packaging. Anticipated to be higher than one year if stored in a freezer. Keep away from direct sunlight and all sources of heat and ignition.

Health & Safety

Consult product specific safety data sheet.

All our products are REACH compliant and do not contain CMR substances.