

L-375

Modified Epoxy Film Adhesive, Low-energy Cure



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Product Data Sheet

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Description

L-375 is a low-temperature (150-250°F / 66-121°C) curing, high peel strength, flame retardant, modified epoxy film adhesive. L-375 is intended to be used for structural bonding of aluminum, fiberglass, aramid, and other structural materials to themselves and to various types of core materials such as aluminum, aramid/phenolic, PVC foam, balsa and paper for sandwich panel.

Advantages of L-375

- ❖ The high peel strength and toughness of L-375 allow the designer to use this material in high abuse areas such as aircraft interiors, cargo systems, marine structural bulkheads, etc.
- ❖ L-375 is very easy to process through a wide variety of cure temperatures and pressures. Curing may occur in autoclave, press, or vacuum bag 8 hours at 150°F (66°C) or in just 30 minutes at 250°F (121°C) with contact pressure (use lower temperatures for balsa, urethane, or PVC core).
- ❖ With dry subcomponents, 'in-hot / out-hot' press cures may be developed by the user.

Physical Properties

- *Standard Weight:* 0.060 lbs/ft² (292 g/m²)
- *Optional Weights:* 0.030 lbs/ft², 0.045 lbs/ft², 0.075 lbs/ft², 0.090 lbs/ft²
- *Support Carriers:* Various supporting carriers, both woven and nonwoven are available
- *Standard Thickness:* 0.012" (0.304 mm)
- *Volatile Content:* Less than 0.5%
- *Tack:* Medium to High Tack

Availability

- 48" Wide Rolls x 100 Yards Long (122 cm x 91 m)

Shelf Life

- 6 months at 0°F (-18°C)
- 30 days at 40°F (4°C)
- 7 days at Room Temperature (75°F or 24°C)

Applicable Documents

- MMM-A-132
- MIL-A-25463
- L-375 is self-extinguishing per FAR part 25.853



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Cure Cycles

- 8 hours at 150°F (66°C), or
- 6 hours at 175°F (79°C), or
- 3 hours at 200°F (93°C), or
- 30 minutes at 250°F (121°C).

Adhesive Primers

L-375 is compatible with:

- L-309 Corrosion Inhibiting Primer
- L-312 Adhesive Primer
- L-319-1 Corrosion Inhibiting Adhesive Primer

Average Mechanical Properties

PROPERTY	0.060 PSF FILM		
	25 PSI (0.172 MPa) CURE	VACUUM BAG CURE	TEST METHOD
TENSILE SHEAR STRENGTH			
-67°F (-55°C)	5,250 PSI (39.6 MPa)	5,000 PSI (34.5 MPa)	MMM-A-132
ROOM TEMP	5,150 PSI (35.5 MPa)	5,100 PSI (35.2 MPa)	MMM-A-132
180°F (82°C)	3,100 PSI (21.4 MPa)	2,800 PSI (19.3 MPa)	MMM-A-132
SANDWICH PEEL STRENGTH			
-67°F (-55°C)	8 in lb/in (36 Nm/m)	-	MIL-A-25463
ROOM TEMP	12.5 in lb/in (56 Nm/m)	12.5 in lb/in (56 Nm/m)	MIL-A-25463
180°F (82°C)	8.5 in lb/in (38 Nm/m)	-	MIL-A-25463
FLATWISE TENSILE STRENGTH			
-67°F (-55°C)	1,200 PSI (8.3 MPa)	-	MIL-A-25463
ROOM TEMP	1,150 PSI (7.9 MPa)	1,075 PSI (7.4 MPa)	MIL-A-25463
180°F (82°C)	850 PSI (5.9 MPa)	-	MIL-A-25463
FLEXURAL STRENGTH			
-67°F (-55°C)	2,000 PSI (13.8 MPa)	-	MIL-A-25463
ROOM TEMP	2,400 PSI (16.5 MPa)	2,200 PSI (15.2 MPa)	MIL-A-25463
180°F (82°C)	1,900 PSI (13.1 MPa)	-	MIL-A-25463

NOTICE:

Product data and parameters cited in this publication have been obtained in J.D. Lincoln, Inc. laboratories using the materials under carefully controlled conditions. The information, therefore, is believed to be accurate and correctly stated. Data of this type may be considered to be indicative of representative properties obtainable. J.D. Lincoln, Inc. cannot accept responsibility for the misapplication of these products, nor for their use under uncontrolled conditions. Numerical values resulting from the application of this material are dependant on processing details. It is recommended that the user develop his or her own application techniques and generate data consistent with his or her specific application and process.