



Hysol® PL 737

Epoxy Film Adhesive

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Description

Hysol® PL 737 is a non-metallic modified epoxy film specifically designed for use in structural aircraft components.

Features

- Service Temperatures from -67°F (-55 °C) to 350°F (177 °C)
- Intermittent service to 400°F (204 °C)
- Non-asbestos
- Excellent low-flow characteristics
- Well balanced performance properties through entire service temperature range
- Superior environmental durability
- Superior double overlap shear values at 350°F (177 °C)
- Shop friendly, low tack film that removes easily from backing

Uses

Bonding aluminum, titanium, composites and honeycomb sandwich structures.

Typical Technical Data	Hysol® PL 737
Type:	Modified epoxy supported film - supported
Carrier:	Nylon Scrim
Color:	Cream
Volatile Content:	<1%
Weight:	.10 - .15 psf (488-732 g/m ²)
Thickness:	.017" - .023" (.043 - .058 cm)
Width:	Up to 48" (122cm)
Out Time:	14 days @ 77°F (25 °C)
Storage:	0°F (-18 °C)
Shelf Life:	6 months @ 0°F (-18 °C)

Performance Properties

Product: Hysol® PL 737 .15 psf supported
Cure: As specified either 2 hrs @ 295°F (146 °C) or 1 hr @ 350°F (177 °C)
Substrates: 2024 T-3 aluminum, phosphoric acid anodized primed with Hysol® PL 537

Test	Test Temp		Performance Values			
			295°F (146°C) Cure		350°F (177°C) Cure	
	°F	°C	PSI	MPa	PSI	MPa
Single Overlap Shear MMM-A-132	75	23	----	----	3555	24.5
	270	132	3910	26.9	3970	27.4
	350	177	2620	18.1	2430	16.8
Double Overlap Shear	75	23	6840	47.2	6720	46.3
	270	132	4900	33.8	5370	37.0
	350	177	3765	26.0	3645	25.1
Double Overlap Shear Aged 300 hrs @ 300°F (149°C)	-67	-55	5475	37.8	5860	40.4
	75	23	7350	50.7	8075	55.7
	270	132	5960	41.1	5835	40.2
	350	177	3375	23.3	4075	28.1

Test	Test Temp		Performance Values			
			295°F (146°C) Cure		350°F (177°C) Cure	
	°F	°C	PSI	MPa	PSI	MPa
Double Overlap Shear Aged 1000 hrs @ 300°F (149°C)	-67	-55	5880	40.6	5700	39.3
	75	23	6900	47.6	8000	55.2
	270	132	5860	40.4	6040	41.7
	350	177	4780	33.0	4460	30.8
Flatwise Tensile	75	23	5195	35.8	----	----
	270	132	5000	34.5	4575	31.6
	350	177	3050	21.0	2700	18.6
Flatwise Tensile Aged 300 hrs @ 300°F (149°C)	270	132	4590	31.7	4625	31.9
	350	177	2400	16.6	3105	21.4
Flatwise Tensile Aged 1000 hrs @ 300°F (149°C)	270	132	4590	31.7	4625	31.9
	350	177	2300	15.9	3115	21.5
Beam Shear	75	23	1375	9.5	N/A	N/A
	270	132	1050	7.2	1300	9.0
	350	177	560	3.9	1245	8.6
Beam Shear Aged 300 hrs @ 300°F (149°C)	270	132	1395	9.6	1300	9.0
	350	177	825	5.7	1045	7.2
Beam Shear Aged 1000 hrs @ 300°F (149°C)	270	132	1390	9.6	1315	9.1
	350	177	----	----	1245	8.6

Typical technical data and performance properties given for reference only. Not for specification purposes.

Application Method

Allow adhesive film to reach room temperature before opening poly bag to prevent moisture contamination. Bonding surfaces should be clean, dry and free of contamination. Remove poly liner and apply adhesive to one surface to be bonded. Just prior to bonding, remove remaining liner. The bonded parts should be held in contact until the adhesive is cured.

Curing Conditions

60 minutes @ 350°F (177°C) or 120 minutes at 295°F (146°C) with 30-100 psi (.21-.69 MPa) autoclave pressure.

Clean-up

Uncured adhesive may be removed effectively with ketone solvents in well-ventilated areas. Avoid contaminating uncured parts. Consult solvent container label/MSDS for proper safety and handling procedures.

Storage

Hysol® PL 737 has a storage life of 6 months at 0°F (-18°C). After removal from 0°F (-18°C), the product has an out time of 14 days at 75°F (24°C).

Handling Precautions

Do not handle or use until the Material Safety Data Sheet has been read and understood.
For industrial use only.

General:

As with most epoxy based systems, use this product with adequate ventilation. Do not get in eyes or on skin. Avoid breathing the vapors. Wash thoroughly with soap and water after handling. Empty containers retain product residue and vapors so obey all precautions when handling empty containers.

ONE PART

CAUTION! This material may cause eye and skin irritation or allergic dermatitis. It contains epoxy resins.

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Users should review the Materials Safety Data Sheet (MSDS) and product label for the material to determine possible health hazards, appropriate engineering controls and precautions to be observed in using the material. Copies of the MSDS and label are available upon request.

