



F AE-350-1

Aeroadhere® FAE-350-1 is a 350°F (177°C) curing epoxy film adhesive designed for composite-to-composite, composite-to-honeycomb, metal-to-metal, and metal-to-honeycomb structures. It has excellent toughness and high temperature performance with suitability for use in both primary and secondary aerospace structures.

Key Features & Benefits

Product Forms

- 0.030 psf M (147 GSM)
 - 0.050 psf M (244 GSM)
 - 0.090 psf M (439 GSM)
- M= Nonwoven mat carrier
- Also available in unsupported version
 - 38" wide standard rolls

Prepreg Storage Life

- Out Life: 15 days @ Room Temperature
- Shelf Life: 12 months from Date of Manufacturing

Dielectric Properties

Dk= 2.9, Df =0.0236 @ 10GHz

Applications

- Metal & Composite Bonding
- Sandwich bonding

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Aerospace Composite Materials



Technical Datasheet

Aerodhere® FAE-350-1M 0.050 psf (244 GSM) – US Units

Typical Result	RTD	250°F Dry	300°F Dry	350°F Dry	250°F Wet	275°F Wet	300°F Wet	325°F Wet	350°F Wet
Metal Lap Shear (psi) ^{1,2}	5451	4425	3764	2928	3830	3422	-	-	1167
Wide Area Metal Lap Shear (psi) ^{1,2}	3659	-	2672	2143	-	-	-	-	-
Composite Lap Shear (psi) ³	3849	3699	-	-	3014	-	2159	1438	-
Composite Double Lap Shear (psi) ⁷	3830	3684	-	-	-	-	-	-	-
Metal Flatwise Tension (psi) ^{1,4}	1495	1120	1085	796	-	-	-	-	-
Composite Flatwise Tension (psi) ⁵	1177	959	-	-	-	-	-	-	-
Floating Roller Peel (lb-f/in) ^{1,6}	40	-	-	-	-	-	-	-	-
Thick Adherent Lap Shear (psi) ^{1,8}	6452	-	-	-	4270	-	-	-	-

Notes:

1 – Metal primed with a high temperature primer

2 – ASTM D1002, 0.063" (1.6mm) 2024 T3 unclad

3 – ASTM D1002, secondary bond 12-ply E-752/3KPW and peel ply surface

4 – ASTM C297, 0.20" (5.1mm) 2024 T3 unclad/ 0.5" (12.7mm) Thick 5052 Al 1/8" 8.1 pcf honeycomb

5 – ASTM C297, 4-ply E-752 3KPW/1-ply E-752 120 fiberglass against 5052 Al 1/8" 8.1 pcf honeycomb

6 – ASTM D3167, 0.063"(1.6mm) 2024 T3 unclad / 0.025"(0.64mm) 2024 T3 unclad

7 – ASTM D3528, secondary bond 12-ply E-752/3KPW and peel ply surface

8 – ASTM D5656, 0.375"(9.53mm) 2024 T3 unclad

Wet for metal – 6 weeks (1008 hours) at 160°F(71°C)/85%RH; wet for composite – coupon weight saturation at 160°F(71°C)/85%RH

Adhesive	Temperature	Linear Limit (LL)			Knee (KN)		Ultimate Failure (UL)	
		<i>f</i>	Σ	G	<i>f</i>	Σ	<i>f</i>	Σ
FAE-350-1 0.05psf M	250	839	0.035	22.9	1893	0.115	3971	1.645

f = Shear Stress, PSI, Σ = Shear Strain, in/in, G = Shear Modulus, KSI

Aerospace Composite Materials

Aerodhere® FAE-350-1M 0.050 psf (244 GSM) – SI Units

Typical Result	RTD	121°C Dry	149°C Dry	177°C Dry	121°C Wet	135°C Wet	149°C Wet	163°F Wet	177°C Wet
Metal Lap Shear (MPa) ^{1,2}	37.6	30.5	26.0	20.2	26.4	23.6	-	-	8.0
Wide Area Metal Lap Shear (MPa) ^{1,2}	25.2	-	18.4	14.8	-	-	-	-	-
Composite Lap Shear (MPa) ³	26.5	25.5	-	-	20.8	-	14.9	9.9	-
Composite Double Lap Shear (MPa) ⁷	26.4	25.4	-	-	-	-	-	-	-
Metal Flatwise Tension (MPa) ^{1,4}	10.3	7.7	7.5	5.5	-	-	-	-	-
Composite Flatwise Tension (MPa) ⁵	8.1	6.6	-	-	-	-	-	-	-
Floating Roller Peel (N/25mm) ^{1,6}	176	-	-	-	189	-	-	-	-
Thick Adherent Lap Shear (MPa) ^{1,8}	44.5	-	-	-	29.4	-	-	-	-

Processing Guidelines

Apply full vacuum (27in / 686mm Hg typical) and pressure of 45 psi (3.0 bar). Heat up at 2-5°F (1-3°C)/minute. Dwell at 350°F (177°C) for 120 minutes (dwell time begins when lagging thermocouple reaches 340°F (171°C)). Cool down at 2-5°F(1-3°C)/minute, and release pressure and vacuum when lagging thermocouple reaches 140°F (60°C).

Note: These guidelines are provided to assist Park material users with general recommendations for successful processing. The recommendations are for general review purposes only and process adjustments may be required to achieve optimum results in your specific manufacturing environment.

All test data provided are typical values and not intended to be specification values. For review of critical specification tolerances, please contact a company representative directly.

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