

**Gillfab™ 1167 Laminate**

August 2004

Description

Gillfab 1167 is an impact resistant, low smoke and toxicity, fiberglass cloth reinforced phenolic laminate.

Applications

Aircraft cargo compartment liner.

Features

- Superior mechanical strength, puncture resistance and corrosion resistance and stiffness.
- Service temperature range: To 220°F.
- White Tedlar® overlay on face side for surface reflectivity.

Specifications

- McDonnell Douglas - DMS 2226 Type 1, Class 1.
- FAR 25.855

Availability

Thickness:	0.011", 0.016", 0.020", 0.025", 0.030", 0.045", 0.060", and 0.090.
Length:	Up to 168"
Width:	Up to 72"
Color:	White on face side, amber on back side.

Construction

Resin: Modified phenolic
Reinforcement: Woven glass cloth.
Surface: 1 mil Tedlar® overlay.

Standard Tolerances

Thickness:	+/- 10%
Length:	+ 0.5", - 0"
Width:	+ 0.5", - 0"
Warp Twist:	3% of distance measured

Alternative Gill Products

Product Number	Difference
Gillfab 1100	High impact resistant, fiberglass cloth reinforced polyester cargo liner. Higher smoke emission. Qualified to McDonnell Douglas DMS 1946 Type 1.
Gillfab 1367A	High impact resistant, fiberglass cloth reinforced phenolic cargo liner. Qualified to DMS 2419, Class 1.



Properties of Gillfab 1167

PROPERTY	TEST METHOD	UNIT	TYPE 16	TYPE 25
Weight	DMS 2226	lb/sq ft (kg/sq m)	0.149 (0.73)	0.243 (1.19)
Thickness	DMS 2226	inch (mm)	0.014 (0.36)	0.024 (0.61)
Water Absorption	ASTM D 570	%	1.3	1.2
Impact	DMS 2226	ft-lb (N-m)	36 (49)	52 (71)
Bolted Joint Strength ¹	DMS 2226	lb (N)	296 (1317)	320 (1423)
Flexural Strength Warp Fill	ASTM D 790	ksi (MPa) ksi (MPa)	NR NR	48.71 (335.9) 40.84 (281.7)
Flexural Modulus Warp Fill	ASDTM D 790	msi (GPa) msi (GPa)	NR NR	3.14 (21.7) 2.14 (14.8)
Tensile Strength Warp Fill	ASTM D 638	ksi (MPa) ksi (MPa)	61.9 (427.6) 60.9 (420.0)	72.8 (502.1) 69.5 (479.3)
Tensile Modulus Warp Fill	ASTM D 638	msi (GPa) msi (GPa)	3.0 (20.7) 2.7 (18.6)	3.3 (22.8) 3.0 (20.7)
Flammability - Vertical Extinguishing Time Burn Length Dripping Flame Time	DMS 1510	second inch (mm) second	0 2.3 (58.4) 0	0 1.5 (38.1) 0
Flammability - 45 Degree Extinguishing Time Afterglow Penetration	DMS 1508	second second ---	0 0 None	0 0 None
Oil Burner Note 2	FAR Part 25, Appendix F, Part III		Pass	Pass
1. Reported in warp direction. NR = No Requirement				



PROPERTY	TEST METHOD	UNIT	TYPE 30	TYPE 45
Weight	DMS 2226	lb/sq ft (kg/sq m)	0.285 (1.39)	0.43 (2.10)
Thickness	DMS 2226	inch (mm)	0.027 (0.69)	0.042 (1.07)
Water Absorption	ASTM D 570	%	1.1	1.0
Impact	DMS 2226	ft-lb (N-m)	56 (76)	>60 (>81)
Bolted Joint Strength ¹	DMS 2226	lb (N)	429 (1908)	574 (2553)
Flexural Strength Warp Fill	ASTM D 790	ksi (MPa) ksi (MPa)	64.55 (445.2) 59.13 (407.8)	54.38 (375.0) 38.94 (268.6)
Flexural Modulus Warp Fill	ASTM D 790	msi (GPa) msi (GPa)	2.66 (18.3) 2.16 (14.9)	3.43 (23.7) 3.18 (21.9)
Tensile Strength Warp Fill	ASTM D 638	ksi (MPa) ksi (MPa)	69.8 (481.9) 63.6 (438.6)	71.1 (490.4) 64.4 (444.1)
Tensile Modulus Warp Fill	ASTM D 638	msi (GPa) msi (GPa)	3.4 (23.5) 3.2 (22.1)	3.4 (23.5) 3.1 (21.4)
Flammability - Vertical Extinguishing Time Burn Length Dripping Flame Time	DMS 1510	second inch (mm) second	0 3.3 (83.8) 0	0 1.2 (30.5) 0
Flammability - 45 Degree Extinguishing Time Afterglow Penetration	DMS 1508	second second ---	0 0 None	0 0 None
Oil Burner Note 2	FAR Part 25, Appendix F, Part III		Pass	Pass
1. Reported in warp direction. NR = No Requirement				

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