

**Gillfab™ 1102 Laminate**

November 2003

Description

A low smoke, high impact fiberglass cloth reinforced phenolic laminate.

Applications

Used as a high performance cargo liner. Gillfab 1102 has one of the best flammability and low smoke characteristics of all the fiberglass cargo liners.

Features

- Burn through resistant - passes NPRM 1184.
- Very low smoke generation and low toxicity in a fire.
- High puncture resistance and mechanical strength.
- Semi-decorative quality having Tedlar® overlay on one side.
- Service temperature: to 250°.

Availability

Thickness:	.012", .016", .020", .030" in 125 ft. rolls (if 56" or narrower).
Length:	14' max. sheet.
Width:	Up to 60" on rolls, over 60"

Specifications

Fokker specification FON 1-4621
McDonnell Douglas DMS 2043A.
FAR 25.853, Appendix F - Fire resistance.

Construction

Resin: Modified phenolic.
Reinforcement: Woven S-2 glass® cloth.
Surface: Gray polyvinyl fluoride film (Tedlar) on one side.

Standard Tolerances

Thickness:	+/- 10%
Length:	+ 0.5", -0"
Width:	+ 0.5", -0"



Alternative Gill Products

Product Number	Difference
Gillfab 1366	Uses polyester resin, more smoke but lower cost.
Gillfab 1167	Very similar, but uses white Tedlar overlay.

Properties of Gillfab 1102

Based on .060" thick laminate (unless noted)

Property	Test Method	Typical Values	
		English	(Metric)
Mechanical Properties			
Tested in warp direction at room temperature.			
Flexural strength, ksi (MPa)	FTMS406-1031	70	(483)
Flexural modulus, msi (GPa)	FTMS406-1031	3.2	(22)
Tensile strength, ksi (MPa)	FTMS406-1011	70	(483)
Tensile modulus, msi (GPa)	FTMS406-1011	3.2	(22)
Compressive strength, ksi (MPa)	FTMS406-1021	35	(241)
Bearing strength, ksi (MPa)	FTMS406-1051	30	(207)
Shear strength, ksi (MPa)	FTMS406-1041	24	(166)
Bolted joint strength, lbs (kg)	DMS 1946	400	(182)
Edge bearing strength, ksi (MPa) (For .030" laminate)	BMS 8-262	37	(255)
After 2 hour boil			
Flexural strength, ksi (MPa)	FTMS406-1031	60	(414)
Flexural modulus, msi (GPa)	FTMS406-1031	3.0	(20.7)
Tensile strength, ksi (MPa)	FTMS406-1011	65	(448)
Compressive strength, ksi (MPa)	FTMS406-1021	30	(207)
Physical Properties			
Weight, psi (kg/m ²)		.60	(2.93)
Specific gravity	FTMS406-5011	1.85	
Resin content, % average	FTMS406-7061	33	
Barcol hardness, minimum	MODEL 934-1	60	
Water absorption, % maximum	FTMS406-7031	0.5	
Thermal expansion, 10E-5in/ ^o C	ASTM D-696	1.2 -	2.8
Flammability			
12 second vertical exposure	FAR 25.853b	Pass	
NBS Smoke Emission			
Ds @ 4 min., flaming	ASTM E-662	10	
Impact strength, for .040" laminate ft.-lbs. (N-m)	TESTER #312	(16.27)	
Taber abrasion resistance, gms. lost, 1000 cycles, CS10 wheel	FTMS406-1091	.05	
Electrical Properties			
Dielectric strength, volts/mil	ASTM D-149	350 -	500
Arc resistance, seconds	ASTM D-495	60 -	120
Dielectric constant, cps	FTMS406-4021	4.4	

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