

**Gillfab™ 1042 Laminate**

January 1995

**Description**

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Gillfab 1042 is a fiberglass cloth-phenolic laminate with smooth bondable faces.

**Applications**

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Used as a laminate for aircraft interiors, usually as facing on sandwich panels or for shim stock. This is our general purpose phenolic-fiberglass cloth laminate.

**Features**

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- Very low smoke emission in a fire.
- Smooth, bondable face side for Tedlar® application.
- Service temperature range: -150°F to 300°F.
- Note: No phenolic laminate has "paintable" surfaces.

**Availability**

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Thickness:	From .01", .015", .02" and up in .01" multiples.
Length:	168"
Width:	60".
Color:	Natural - brownish

**Specifications**

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McDonnell Douglas DMS 1558L, Ty II.  
FAR 25.853 and 25.855. Fire resistance.

**Construction**

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Resin: Phenolic  
Reinforcement: Fiberglass cloth  
Surface: Matte

**Standard Tolerances**

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



## Alternative Gill Products

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<b>Product Number</b>	<b>Difference</b>
Gillfab 1002	Higher service temperature phenolic laminate.
Gillfab 1302	Higher strength phenolic laminate. lower cost.
Gillfab 1142	1042 micro sanded 1 side, for bonding.
Gillfab 1342	1042 with peel ply, for bonding.



**Properties of Gillfab 1042**  
Based on .060" thick laminate (unless noted)

Property	Test Method	Typical Values	
		English	(Metric)
<b>Mechanical properties</b>			
Flexural strength, ksi (MPa)	FTMS406-1031	74	(510)
Flexural modulus, msi (GPa)	FTMS406-1031	3.2	(22)
Tensile strength, ksi (MPa)	FTMS406-1011	45	(310)
Tensile modulus, msi (GPa)	FTMS406-1011	3.2	(22)
Compressive strength, ksi (MPa)	FTMS406-1021	45	(310)
After 2 hour boil			
Flexural strength, ksi (MPa)	FTMS406-1031	72	(496)
Flexural modulus, msi (GPa)	FTMS406-1031	3.1	(21)
Tensile strength, ksi (MPa)	FTMS406-1011	45	(310)
Tensile modulus, msi (GPa)	FTMS406-1011	3.1	(21)
Compressive strength, ksi (MPa)	FTMS406-1021	42	(290)
<b>Physical properties</b>			
Weight, psf (kg/m <sup>2</sup> ) (.010" thick laminate)		.59	(2.88)
Specific gravity,	FTMS406-5011	1.85	
Resin content, % avg.	FTMS406-7061	31	
Barcol hardness, min.	MODEL 934-1	65	
Water absorption, % max.	FTMS406-7031	.25	
Thermal expansion, 10E-5 in <sup>o</sup> C	ASTM D-696	1.5-3.0	
<b>Flammability</b>			
12 sec. vertical exposure self-extinguishing time (sec)	FAR 25.853b	2-3	
burn length, inches (mm)		1.5	(38.1)
45 degree test self-extinguishing time (sec)	FAR 25.855	Pass	
Smoke emission, flaming condition after 4 min., D <sub>s</sub> for .060" laminate	NBS Smoke Chamber	4	
Impact Strength, Gardner model 11K3 2 lb. dart, in.-lbs. (Nm) for a .040" thick laminate	ASTM D3029	45	(5.08)
Taber abrasion resistance, gms. lost, 1000 cycles, CS10 wheel	FTMS406-1091	.05	
<b>Electrical properties</b>			
Dielectric strength, volts/mil	ASTM D-149	350-500	
Dielectric constant, cps	FTMS406-4021	5-7	
Dissipation factor, cps	FTMS406-4021	.04-.05	

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