



Gillfab™ 1002 Laminate

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Description

Gillfab 1002 is a fiberglass cloth reinforced phenolic laminate.

Applications

Used in structural applications near heat sources or where strength at elevated temperatures is necessary.

Features

- Very low smoke evolution in a fire.
- Ablative properties-phenolic carbonizes above 650F.
- High mechanical strength.
- Can be painted only with proper surface treatment.
- Service temperature range: 350F continuous, intermittent to 500F +.

Availability

Thickness:	0.020 ins (.508 mm) and up, in multiples of .010 ins (.254mm)
Length:	Up to 168 ins (4,267 mm)
Width:	Up to 72 ins (1,829 mm)
Color:	Natural - dark brown.

Specifications

Douglas DMS 1556.
Mil P 25515, Grade A.

Construction

Resin: Mil R 9299 phenolic.
Reinforcement: Fiberglass cloth; Mil-C-9084, Ty 8
Surface: Matte.



Standard Tolerances

Thickness:	+/- 10%
Length:	+/- 0.5" (12.7 mm)
Width:	Up to 1.75" (44.45 mm) thick, +/- 0.5" (12.7 mm) > 1.75" (44.45 mm) thick, + 2" (50.8 mm)- 4" (101.6 mm)

Alternative Gill Products

Product Number	Difference
Gillfab 1007	Ablative laminate, Refrasil reinforcement in place of glass.
Gillfab 1042	Lower service temperature phenolic laminate.
Gillfab 1302	Higher mechanical strength but lower service temperature.



Properties of Gillfab 1002

Based on .125 inch thick laminate unless noted
typical average property values

PROPERTY	TEST METHOD	UNIT	VALUE
Weight	ASTM C29	lb/sq ft (kg/sq m)	1.20 (5.86)
Thickness	ASTM C366	inch (mm)	.125 (3.18)
Flexural Strength	ASTM D790	ksi (MPa)	60 (413)
Ambient		ksi (MPa)	56 (386)
160 °F, 1/2 Hour Exposure		ksi (MPa)	43 (296)
300 °F, 1/2 Hour Exposure		ksi (MPa)	40 (276)
500 °F, 1/2 Hour Exposure		ksi (MPa)	55 (379)
2 Hour Boil, Deionized Water			
Flexural Modulus	ASTM D790	msi (GPa)	3.0 (21)
Ambient		msi (GPa)	3.0 (21)
160 °F, 1/2 Hour Exposure		msi (GPa)	3.0 (21)
300 °F, 1/2 Hour Exposure		msi (GPa)	3.0 (21)
500 °F, 1/2 Hour Exposure		msi (GPa)	2.5 (17)
2 Hour Boil, Deionized Water			
Tensile Strength	ASTM D638	ksi (MPa)	45 (310)
Ambient		ksi (MPa)	35 (241)
300 °F, 1/2 Hour Exposure		ksi (MPa)	30 (207)
500 °F, 1/2 Hour Exposure		ksi (MPa)	38 (262)
2 Hour Boil, Deionized Water			
Compression Strength	ASTM D695	ksi (MPa)	40 (276)
Ambient		ksi (MPa)	33 (228)
300 °F, 1/2 Hour Exposure		ksi (MPa)	30 (207)
500 °F, 1/2 Hour Exposure		ksi (MPa)	30 (207)
2 Hour Boil, Deionized Water			
Water Absorption	ASTM D570	%	0.25
Flammability - 12 Second Vertical	FAR 25.853	second	2
Self-Extinguishing Time		inch (mm)	1
Burn Length		second	None
Drip Extinguishing Time			
Flammability - 45 Degree	FAR 25.853	second	0
Self-Extinguishing Time		---	None
Penetration		second	0
Glow Time			
Smoke Density Note 1	ASTM	D _s	4

Note 1 - , 4 Minute Flaming, 0.030" Thick Laminate

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