Gillfab™ 1094 Laminate

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Description

Gillfab 1094 is a ballistic laminate made from woven fiberglass roving reinforced polyester resin.

Applications

Used as general purpose ballistic laminate to stop bullets and shrapnel. Spall liner in armored trucks or tanks.

Features

- Absorbs and stops bullet without ricochet.
- Lower weight than steel armor for same bullet resistance.
- Good moisture resistance.
- Service Temperature: To 180°F.

Availability

Thickness:	From .06" and up.
Length:	Up to 168”
Width:	Up to 72".
Color:	Natural - off white.

Ballistic Properties

The M.C. Gill Corporation can supply an estimate of the thickness of the panel(s) required to stop a projectile from penetrating a laminate when the following information is given to us: Size and weight of the projectile, estimated velocity of the projectile, distance from the target, and length of barrel from which the projectile is fired. In the case of spalling or shrapnel, please call. There are standard panels available, based on NIJ threat level.

Construction

Resin: Polyester per Mil-R-7575.
Reinforcement: Woven glass roving per Mil-C-19663(Navy).
Surface: Glossary

Standard Tolerances

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

Alternative Gill Products

Product Number	Difference
Gillfab 1094 FR	Pass FAR 25.853. Fire resistance.
Gillfab 1184	Higher performance glass reinforced ballistic laminate.
Gillfab 1160	Higher performance Kevlar® reinforced ballistic laminate - vinyl ester resin.
Gillfab 1027	Structural grade of fiberglass roving polyester laminate, not ballistic grade.
Gillfab 1394	High performance S-2 glass® reinforced ballistic laminate - phenolic resin.

Properties of Gillfab 1094

Based on .125" thick laminate (unless noted)

		Typical Values	
Property	**Test Method**	**English**	**(Metric)**
Mechanical			
Tested in warp direction at room temperature.			
Flexural strength, ksi (MPa)	FTMS406-1031	45	(310)
Flexural modulus, msi (GPa)	FTMS406-1031	0.9	(6.2)
Tensile strength, ksi (MPa)	FTMS406-1011	36	(248)
Tensile modulus, msi (GPa)	FTMS406-1011	2.0	(13.8)
Compressive strength, ksi (MPa)	FTMS406-1021	26	(179)
Physical Properties			
Weight, psf (kg/m^2)		1.25	(6.1)
Specific gravity	FTMS406-5011	1.95	
Barcol hardness, min.	MODEL 934-1	35	
Water absorption, % max.	FTMS406-7031	0.3	
Flammability			
12 sec. vertical exposure	FAR 25.853b	Pass	
45 degree test	FAR 25.855	Pass	

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