

**Gillfab™ 4123 Panel****March 1998****Description**

Gillfab 4123 is a low smoke sandwich panel with facings of phenolic resin reinforced with woven glass cloth and Nomex® honeycomb core.

Applications

Flooring panel for main deck cargo, freighter and convertible aircraft.

Features

- All phenolic resin - low smoke emission in a fire.
- High impact, corrosion resistant facings.
- Lightweight.
- Service temperature: to 180°F.
- Good burn through resistance.

Specifications

- AI Technical Specification No. 5360 M1M 000500, Issue 5 (MDC2).
- FAR 25.853 - fire resistant.
- ABD 0031 - Smoke density, toxicity, flammability, and burn through.

Construction

Adhesive:	Modified epoxy.
Core:	Aramid honeycomb (Nomex).
Facings:	Phenolic resin, glass fiber reinforced plastic.

Availability

Thickness:	0.374"
Length and Width:	Per customer specification, up to 60"x144"
Facing thickness:	Top: 0.030", Bottom: 0.020"
Core:	9.0 pcf density, 3/16" cell size



Standard Tolerances

Thickness:	+0.02", -0.01"
Length:	-0, +0.5"
Width:	-0, +0.5"
Warpage:	0.03937"

Alternative Gill Products

Product Number	Difference
Gillfab 4522	Thinner facings and lower density core.
Gillfab 4223	Thicker top facing; panel thickness greater.

Properties of Gillfab 4123

Based on a panel 0.374" thick with 0.030"/0.020" phenolic facings and a 9 pcf 0.324" thick core
Typical Average and Specification Property Values English (Metric)
Specification: AI 5360 M1M 000500, Issue 5 (MDC2)

Property	Test Method	Typical	Average	Specification	Requirement
Weight, psf (kg/m ²)	ASTM C 29	0.789	(3.81)	0.799	(3.9) max.
In-plane Shear, lbs/in (N/mm)	Chapter 9.2*	782	(137)	514	(90)
Long Beam Flexural Strength, lbs (N)	ASTM C 393				
Ultimate Load					
Ribbon (L) Direction					
RT		504	(2,242)	281	(1,250)
HA + 40°C		493	(2,193)	Reported	
Transverse (W) Direction					
RT		466	(2,072)	281	(1,250)
HA + 40°C		475	(2,112)		Reported
Long Beam Deflection @ 445N (100 lbs), in (mm)					
Ribbon (L) Direction					
RT		0.545	(13.84)	0.787	(20)
HA + 40°C		0.527	(13.29)		Reported
Transverse (W) Direction					
RT		0.543	(13.79)	0.787	(20)
HA + 40°C		0.519	(13.18)		Reported
Panel Shear					
Ultimate Load, lbs (N)	ASTM C 393				
RT		964	(4,288)	674	(3,000)
HA + 40°C		917	(4,079)		Reported



Property	Test Method	Typical	Average	Specification	Requirement
Food Cart Roller, cycles	Chapter 9.5				
@ 125.7 lbs/wheel (57 KG)		Pass	(No Damage)	120,000	
@ 165.3 lbs/wheel (75 KG)		Pass	(No Damage)	35,000	
Bending Under Static Load	Chapter 9.6				
F (Limit Corrected) lbs (N)		1,512	(6,727)	1,506	(6,700)
F (Ultimate Corrected)		6,230	(27,713)	2,268	(10,090)
Deflection @ °F (Limit Corrected), in (mm)		0.657	(16.69)	0.669	(17.00)
Insert Shear					
Ultimate Load, lbs (N)	Chapter 9.7				
RT		1,921	(8,546)	1,710	(7,600)
HA + 40°C		1,762	(7,842)		Reported
Impact Strength, ft-lbs, (N-m)	Chapter 9.8				
	ASTM D 3029	8.45	(11.46)	4.1	(5.5)
Indentation, lbs (N)	Chapter 9.9	450	(2,002)	438.4	(1,950)
C.D. Peel, lbs (N)	ASTM D 1781				
RT		66.5	(295.8)	Reported	
HA + 40°C		64.6	(287.4)	Reported	
Stabilized Core Compression					
psi(N/mm ²)	ASTM C 365	2,234	(15.4)	1,596	(11)
Flammability	ABD 0031				
60 Second Vertical	AITM 2.0002A				
Extinguishing Time, sec		1.8		15.0	
Burn Length, in (mm)		0.5	(12.7)	6.0	(152)
Drip Extinguishing Time, sec		0.0	3.0		
12 Second Vertical	AITM 2.0002B				
Extinguishing Time, sec		0.0	15.0		
Burn Length, in (mm)		0.2	(5.1)	8.0	(203)
Drip Extinguishing Time, sec		0.0		5.0	
30 Second 45 Degree	AITM 2.0004				
Extinguishing Time, sec		0.5		15.0	
Afterglow, sec		0.0		10.0	
Flame Penetration		None		None	
Flame Penetration Resistance	FAR 25.855, App. F				
Flame Penetration	Part III, Amend. 25-60	None		None	
Temperature Rise, °F		150		400	

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