

**Gillfab™ 5042B Panel**

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**Description**

Gillfab 5042B is an aircraft grade sandwich panel made from aluminum alloy facings bonded to end grain balsa wood core.

**Applications**

Normally used in commercial aircraft for flooring, galley panels, cargo containers and bulkheads. (Note: Unprotected aluminum is subject to corrosion in wet applications). Due to low cost and ready availability, 5040 has been used in many miscellaneous applications

**Features**

- High performance aircraft cargo flooring.
- Service temperature range: -50°F to 160°F.

**Specifications**

- McDonnell Douglas specifications S3932193, S3932195 and S4931863.
- FAR 25.853 - fire resistance.

**Construction**

Adhesive: Modified epoxy film adhesive.  
Core: 9 pcf end grain balsa wood.  
Facings: 7075-T6.

**Availability**

Thickness: .400" nominal.  
Size: Standard size is 48" x 144". Up to 72" x 168" on request.  
Facings: Standard aluminum thickness: .020"/.010".

**Standard Tolerances**

Thickness:  $\pm .010$ "  
Length: + 0.5", - 0.125"  
Width: + 0.5", - 0.125"  
Warpage:  $<.004 L^2/t$  where L = length (ft.) and t = thickness (in.)



## Alternative Gill Products

Product Number	Difference
Gillfab 5007A & B	FRP facings in place of aluminum.
Gillfab 5140	Tedlar® film overlay bonded to one side for decorative appearance. Tedlar has canvas texture.
Gillfab 5041	6 pcf end grain balsa for non-structural (galley) panels, lower core shear strength.
Gillfab 504o	Uses elastomer adhesive.

### Properties of Gillfloor 5042B

Based on 0.40" Nominal Thickness with 0.020"/0.010"  
Aluminum Facings and 9 pcf Balsa Core  
Typical Average Property Values

Property	Test Method	Unit	Value
Weight	ASTM C 29	lb/sq ft (kg/sqm)	0.803 (0.36)
Thickness	ASTM C366	inch (mm)	0.397 (10.1)
Sandwich Peel At Room Temperature After 30 day water soak	MIL STD 401B	in-lb (N-m)/3 inch width in-lb(N-m)/3 inch width	49 (5.54) 49 (5.54)
Long Beam Flexural Note 1 Ultimate Load Facing Stress Deflection at 100 lb	MIL STD 401B	lb (N) ksi (MPa) inch (mm)	426 (1,895) 46 (317) 0.354 (9.0)
Panel Core Shear	MIL STD 401B	lb/sq in (kPa)	447 (3,082)
Flatwise Compression	MIL STD 401B	lb/sq in (kPa)	2,198 (15,155)
Flatwise Tensile	MIL STD 401B	lb/sq in (kPa)	1,408 (9,708)
Impact Note 2	ASTM D3029	in-lb (N-m)	60 (81.4)

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M.C. Gill Corp.  
4056 Easy Street  
El Monte, CA 91731-1087 USA  
626-443-4022 info@mcgillcorp.com

M.C. Gill Europe Ltd. - Insoleq  
23 Enterprise Road, Balloo Industrial Estate South  
Bangor Co-Down BT19 7TA, Northern Ireland  
+44 (0) 2891 470073 sales@mcgillcorp.com

[www.mcgillcorp.com](http://www.mcgillcorp.com)

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