



# Gillfloor™ 4809 Panel

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## Description

Gillfloor 4809 is a lightweight flooring panel made from unidirectional carbon fiber reinforced epoxy facings bonded to Kevlar® aramid honeycomb core.

## Applications

Light weight, high strength panels designed for use as flooring in passenger compartments of commercial aircraft in which light weight is a major consideration.

## Features

- High impact resistant facings covered with a thin fiberglass layer to prevent galvanic corrosion.
- High strength-to-weight ratio.
- Low panel deflection under load.
- Service temperature to 180°F.

## Specifications

- Qualified to Boeing BMS 4-20, Types VI, VII, VIII, and IX.
- FAR 25.853 - fire resistant.

## Construction

Adhesive:	Fire retardant modified epoxy.	Type VI	Type VII	Type VIII	Type IX
Core:	5/32" cell Kevlar® honeycomb., density, lbs/³	4.5	6.5	8.0	9.0
Facings:	Unidirectional carbon epoxy, thickness, ins	0.015/0.015	0.015/0.015	0.015/0.015	0.030/0.030

## Availability

Thickness: Per customer specifications.

Size: Standard size is 48" x 144". Other sizes are available on request to up 72" x 168".

## Standard Tolerances

Thickness: +/- .01"

Length: -0, +0.5"

Width: -0, +0.5"

Warpage: .025 in./ft., max/



## Alternate Gill Products

Product Number	Difference
Gillfloor 4709	Similar construction, but with Nomex® honeycomb core; qualified to Boeing BMS 4-20, Types II and III.
Gillfloor4417	S-2 glass® reinforced epoxy facings give a higher impact resistance and lower cost, but a higher weight psf. Qualified to 17 Boeing Specification BMS 4-17, Types I, II, III, IV, V, IX; Drawing 69B15779, Type VB; D204-30838-1, Types II, V; Douglas Products Div./Boeing Drawing BZZ7002, Types I, II; United Airlines Specification SHE 2903, Types 1, 2, 3, 4, 6.
Gillfab 4109/4509	Unidirectional carbon fiber reinforced phenolic facings bonded to Nomex honeycomb core. Qualified to McDonnell Douglas Drawing 7954400.

### Typical Properties of Gillfloor 4809

Property	Test Method	Type VI	Type VII	Type VIII	Type IX
Thickness, in (mm)	ASTM C 29	0.400 (10.2)	0.400 (10.2)	0.400 (10.2)	0.400 (10.2)
Areal Weight, lbs/ft <sup>2</sup>	GTP 85 <sup>1</sup>	0.400	0.47	0.57	0.75
Long Beam Flexural Strength, Ultimate Load <sup>2</sup> , lbs (N) Deflection at 100 lbs, in (mm)	ASTM C 393	280 0.458 (11.7)	280 0.460 (11.7)	315 0.347 (8.8)	590 0.247 (6.3)
Climbing Drum Peel Strength <sup>2</sup> , in-lbs/3 in width (N-m/3 in width)	ASTM D 1781	20 (2.26)	20 (2.26)	18 (2.03)	18 (2.03)
Panel Shear (Short Beam) <sup>2</sup> , lbs (N)	ASTM C 393	730 (3247)	890 (3959)	1190 (5294)	1650 (7340)
Flatwise Compressive Strength <sup>2</sup> , psi (MPa)	ASTM C 365	915 (6.3)	1840 (12.7)	2350 (16.2)	3150 (21.7)
Flammability					
60 second Vertical					
Extinguishing Time, secs	FAR Part 25,	1.7	1.9	2.1	2.0
Burn Length, ins (mm)	Appendix F,	2.5(63.5)	2.0 (50.8)	1.9 (48.3)	1.5 (38.1)
Drip Extinguishing Time, secs	Part I(b)(4)	0.0	0.0	0.0	0.0
45° Test					
Extinguishing Time, secs	FAR Part 25,	0.0	0.0	0.0	0.0
Flame Penetration	Appendix F,	None	None	None	None
Afterglow Time, secs	Part I(b)(6)	0.0	0.0	0.0	0.0
Smoke Emission, Flaming, 4 mins, D <sub>s</sub>	FAR Part 25, Appendix F, Part V	114	118	117	136

1. Mc. Gill Corp. Test Procedure
2. Typical properties shown are "B" allowable.

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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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