



Gillfloor™ 4709 Panel

May 2000

Description

Gillfloor 4709 is a lightweight flooring panel made from unidirectional carbon fiber reinforced epoxy facings bonded to aramid honeycomb core.

Applications

Designed for use as flooring in cabin compartments of commercial aircraft

Features

- High impact resistant facings covered with a thin fiberglass layer to prevent galvanic corrosion.
- High strength-to-weight ratio.
- Very light weight and low deflection.
- Service temperature range: to 180°F.

Specifications

- Qualified to Boeing BMS 4-20, Type II and Type III.
- FAR 25.853 - fire resistant.

Construction

		Type II	Type III
Adhesive:	Fire retardant modified epoxy.	.010"/.010"	.010"/.010"
Core:	5/32" cell aramid honeycomb.	9 pcf	5 pcf
Facings:	Unidirectional carbon epoxy.	.015"/.015"	.015"/.015"

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/

Alternative Gill Products

Product Number	Difference
Gillfloor4417	S-2 glass [®] reinforced epoxy facings give a higher impact resistance and lower cost, but a higher weight psf. Qualified to Boeing Specification BMS 4-17.
Gillfab 4109/4509	Unidirectional carbon fiber reinforced phenolic facings bonded to Nomex honeycomb core. Qualified to McDonnell Douglas Drawing 7954400.



Properties of Gillfloor 4709

Property	Test Method	Unit	Type II	Type III
Weight	BMS 4-20	lb/sq ft	0.555	0.445
Thickness	BMS 4-20	inch	0.403	0.402
Sandwich Peel	MIL-STD 401B	in-lb/3 in width	39	39
Sandwich Peel, Humidity Aged	MIL-STD 401B	in-lb/3 in width	41	41
Long Beam Flexural Ultimate Load	MIL-STD 401B	lbs.	363	332
Deflection		inch	0.420	0.436
Long Beam Flexural Ultimate Load, humidity aged	MIL-STD 401B	lbs.	325	304
Stabilized Core Compression	MIL-STD 401B	lb/sq in	1,705	730
Insert Shear	BMS 4-20	lbs.	1,769	1,723
Impact Strength	BMS 4-20	in-lbs.	32	35
In-Plane Shear	BMS 4-20	lb/in	411	402
Flammability - 60 Second Vertical Self-Extinguishing Time	FAR 25.853	second	1.65	2.85
Burn Length		inch	2.09	2.57
Drip Extinguishing Time		second	0	0
Flammability - 45 Degree Self-Extinguishing Time	FAR 25.853	second	0	0
Afterglow		second	0	0
Penetration		----	None	None
Smoke Density (Flaming Mode)	BSS 7238	D _s	168	151
Toxic Gas Emission	BSS 7239			
HCN			10	13
HF			<1.5	<1.5
HCl		ppm	<1	<1
SO ₂			<1	<1
NO _x			20	13
CO			233	200
Food Roller Cart Note 1	BMS 4-20	# cycles	123,540/35,640	80,423
Note 1 - Roller cart test was terminated and no failure was observed. These values pass the requirements of BMS 4-20.				

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