

**Gillfloor™ 5065**

March 2001

Description

Gillfloor 5065 is an aircraft grade sandwich panel made from high impact fiberglass epoxy facings bonded to aluminum honeycomb core.

Applications

Used for cargo flooring panels in freighter aircraft..

Features

- High puncture resistant facings.
- High strength-to-weight ratio.
- Aluminum honeycomb is lower in cost than aramid honeycomb.
- Service temperature range: -90°F to 180°F.

Specifications

- Qualified to McDonnell Douglas Drawing BZZ 7002 Ty IV.
- FAR 25.853 - Fire resistance. • Federal Express Engineering Report No. 91-019

Construction

Adhesive: Modified epoxy film, fire retardant.
Core: 1/8" cell size; 8.5 pcf density, 5052 alloy aluminum honeycomb.
Facings: Unidirectional fiberglass/epoxy .030"/.015".

Availability

Thickness: .400".
Size: Standard size is 48" x 144". Up to 72" x 168" are available on special order.

Standard Tolerances

Thickness: $\pm .010"$
Length: $+ 0.5", - 0.0"$
Width: $+ 0.5", - 0.0"$
Warpage: $<.004 L^2/t$ where L = length (ft.) and t = thickness (in.)



Similar Gill Products

Product Number	Difference
Gillfab 5424	Similar construction. Qualified to Boeing BMS 4-23.

Properties of Gillfloor 5065

Typical Values - Based on a panel Thickness 0.40" (Ty IV) & 0.30" (Ty V) with facings .030"/.015"

Property	Test Method	Unit	Typical Values English (Metric)	
			Ty IV	Ty V
Weight	BZZ 7002	lb/sq ft (Kg/sq m)	0.770 (3.76)	0.706 (3.45)
Thickness	BZZ 7002	Inches (mm)	0.394 (10.0)	0.292 (7.42)
Long beam bending, dry Ribbon direction Load Deflection @ 100 lbs. Transverse direction Load Deflection @ 100 lbs.	AMS-STD 401	lbs (N) inches (mm)	583 (2,593) 0.469 (11.9)	N/A 0.898 (22.76)
Long beam bending, humidity aged, ribbon direction Load Deflection @ 100 lbs.	AMS-STD 401	lbs (N) inches (mm)	590 (2,624) 0.479 (12.2)	N/A N/A
Sandwich peel strength, dry	AMS-STD 401	in-lbs/3 in (N-m)	53 (6.0)	40 (4.52)
Sandwich peel strength, humidity aged.	AMS-STD 401	in-lbs/3 in (N-m)	47 (5.3)	N/A
In-plane shear	BZZ 7002	lbs (N)	8,250 (36,698)	10,098 (44,918)
Panel shear bending Dry Humidity Aged	BZZ 7002	lbs (N)	1,044 (4,644) 1,045 (4,648)	860 (3826) N/A
Impact strength	BZZ 7002	lbs (Nm)	105 (11.86)	120 (13.56)
Insert shear	BZZ 7002	lbs (N)	1,675 (7,451)	1696 (7,544)
Smoke density, flaming mode, 4 minutes	DMS 1500	Ds	51	62
Flammability Test, 60 Second Vertical Self-extinguishing time Burn length Drip time	FAR Part 25, Appendix F Part 1	seconds inches (mm) seconds	0.8 0.7 (17.8) 0	0.8 1.1 (27.94) 0
Flammability Test, 45 degree 30 Second Self-extinguishing time Penetration Glow time	FAR Part 25, Appendix F Part 1	seconds seconds	0 No Penetration 0	0 No Penetration 0
Warpage	BZZ 7002	in/ft (N-m)	0.008 (0.066)	0
Indentation	BZZ 7002	lbs (N)	380 (1690)	380 (1,690)
Roller cart Number of cycles	BZZ 7002	lbs (N) number	250 (1112) 120,814	250 (1,112) N/A
Stabilized core compression	BZZ 7002	psi (kPa)	1,578 (10,880)	1,757 (12,114)

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