



Gillfab™ 4605 Panel

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Description

Gillfab 4605 is a low smoke sandwich panel with facings of phenolic resin reinforced with woven glass cloth/unidirectional carbon bonded to a Nomex® honeycomb core.

Applications

Flooring panel for passenger and flight compartments for Airbus Industrie A319/A320/ A321 and A330/A340 aircraft.

Features

- All phenolic resin - low smoke and toxic emissions in a fire.
- High strength and rigidity; corrosion resistant facings.
- Light weight.
- Service temperature: to 180°F.

Specifications

- AI Technical Specification No. 5360 M1M 000600, Issue 3 (PC1).
- FAR 25.853 - fire resistant.
- ABD 0031 - Smoke density and toxicity.

Construction

Adhesive:	Modified epoxy.
Core:	Aramid honeycomb (Nomex).
Facings:	Woven fiberglass cloth/unidirectional carbon fiber reinforced phenolic resin.

Availability

Thickness:	0.374"
Length and Width:	Per customer specification, up to 54"x144"
Facing thickness:	Top: 0.017", Bottom: 0.017"
Core:	8.0 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 4505	Thicker facings, heavier density core. For use in high traffic areas.
Gillfab 4205	Panel designation originally qualified for use in passenger and flight compartments in A320/A321 aircraft. Thicker facings, lighter density core.

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Properties of Gillfab 4605

Based on a panel 0.374" thick with 0.017"/0.017" phenolic facings and a 8 pcf 0.340" thick core
 Typical Average and Specification Property Values English (Metric)
 Specification: AI 5360 M1M 000600, Issue 3 (PC1)

Property	Test Method	Typical
Weight, psf (kg/m ²)	ASTM C 29	0.577 (2.82)
In-Plane Shear, lbs/in (N/mm)	Chapter 9.2 ²	636 (111)
Long Beam Flexural Strength, lbs (N)	ASTM C 393	
Ultimate Load		
Ribbon (L) Direction		
RT		353 (1,569)
HA + 40°C		340 (1,512)
Transverse (W) Direction		
RT		341 (1,515)
Humidity Aging + 40°C		357 (1,587)
Long Beam Deflection @		
445N (100 lbs), in (mm)		
Ribbon (L) Direction		
RT		0.413 (10.5)
Humidity Aging + 40°C		0.398 (10.11)
Transverse (W) Direction		
RT		0.401 (10.19)
Humidity Aging + 40°C		0.388 (9.86)
Panel Shear		
Ultimate Load, lbs (N)	ASTM C 393	
RT		782 (3,480)
Humidity Aging + 40°C		738 (3,283)
Food Cart Roller, cycles	Chapter 9.5 ²	
@ 88 lbs/wheel (40KG)		Pass (No Damage)
Bending Under Static Load, lbs (N)	Chapter 9.6 ²	
F (Limit Corrected)		829 (3,689)
F (Ultimate Corrected)		4,934 (21,946)
Deflection @ °F (Limit Corrected) in (mm)		0.415 (10.55)
Insert Shear		
Ultimate Load, lbs (N)	Chapter 9.7 ²	
RT		2,212 (9,837)
Humidity Aging + 40°C		2,008 (8,930)
Impact Strength, ft-lbs (N-m)	Chapter 9.8 ²	
	ASTM D 3029	2.75 (3.73)
Indentation, lbs (N)	Chapter 9.10 ²	339 (1,510)
C.D. Peel, lbs (N)	ASTM D 1781	
RT		85 (376.0)
Humidity Aging + 40°C		62 (274.0)
Stabilized Core Compression	ASTM C 365	2,206 (15.21)
Property	Test Method	Typical
Flammability	FAR 25 App F part I	
60 Second Vertical	AITM 2.0002A ³	
Extinguishing Time, sec		2.7
Burn Length, in (mm)		0.5 (5.1)
Drip Extinguishing Time, sec		0.0
12 Second Vertical	AITM 2.0002B ³	
Extinguishing Time, sec		0.0
Burn Length, in (mm)		0.1 (2.54)
Drip Extinguishing Time, sec		0.0

1. Accelerated Aging: 45 days at 70 °C/ 70% relative humidity.

2. Chapter numbers in "Test Method" column refer to section in Airbus Specification 5360 M1M 000600.

3. Airbus Industrie Test Methods,

