

**Gillfab™ 5071A/5072A Panel**

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**Description**

Gillfab 5071A and 5072A are lightweight, high performance sandwich panels designed for use in aircraft cabin interior structures such as galleys, lavatories, bulkheads, partitions, stowage compartments and crew rests.

**Features**

- Extremely low heat release, fire, smoke and toxicity values provide maximum margins for the application of most decorative finishes.
- Uniform, non-porous facings facilitate the application of paint or other decorative overlays with minimal surface preparation.
- Superior resistance to moisture and corrosion.
- Easily cut and machined.
- Service temperature to 180°F/80°C.

**Specifications**

- FAR/JAR Part 25 Appendix F Parts I, IV, and V: flammability, heat release rate, and smoke density

**Construction**

Core: Aramid honeycomb  
Facings: Woven glass cloth reinforced modified phenolic resin system

**Availability**

Thickness: Per customer specification.

Size: Standard widths are: 48" (1219 mm) and 60" (1524 mm); 72" (1829 mm) is available by special order.

Facings: Gillfab 5071A - from .010" (.25mm) in 0.010" increments  
Gillfab 5072A - from .018" (.46mm) in 0.018" increments

Core: 1.8 to 9.0 pcf (29 kg/m<sup>3</sup> - 144 kg/m<sup>3</sup>) density;  
1/8" (3.18 mm) , 3/16" (4.76 mm) and 1/4" (6.35 mm) cell size.

**Standard Tolerances**

Thickness: + .010" (.25 mm)  
Length: + 0.5" (12.7 mm), -0"  
Width: + 0.5" (12.7 mm), -0"  
Warpage: <0.025 in./ft. (2.1 mm./m.)



### Properties of Gillfab 5071A/5072A

Based on 0.5" (12.7mm) thick panel, 1/8" cell (3.2 mm), 3 pcf (48 kg/m<sup>3</sup>) core  
Typical Properties

Property	Test Method	Panel, Facing Thicknesses, in. (mm), Typical Property Measurement	
		5071A .010"/.010" (.25 mm)	5072A .018"/.018" (.46 mm)
<b>Mechanical</b>			
Long Beam Flexural Strength, 20" span, Ribbon Direction, Ultimate Load, lbs. (N) Facing stress, ksi (mPa) Deflection @ 100 lbs., ins. (mm.)	AMS STD 401B	180 (801) 31 (214) 0.90 (22.9)	300 (1,334) 29 (200) 0.60 (15.2)
Sandwich peel, in-lbs/3 in. (N-m/76 mm)	AMS STD 401B	25 (2,825)	28 (3,164)
Panel Core shear, psi (mPa) Ribbon (L) direction Transverse (W) direction	AMS STD 401B	175 (1.2) 110 (0.75)	175 (1.2) 110 (0.75)
Flatwise compressive strength, psi (mPa)	AMS STD 401B	360 (2.5)	440 (3.0)
Impact Resistance, Gardner, in-lb (N-m)	ASTM D3029	20 (2.25)	48 (5.40)
<b>Physical</b>			
Weight, lb./ft. <sup>2</sup> (kg/m <sup>2</sup> )	GTP 085*	0.40 (2.0)	0.55 (2.7)
Flammability, 60 second vertical Burn length, in (mm) Self-extinguishing Time, secs. Drip Extinguishing Time, secs.	FAR Part 25 Appendix F Part 1(b)(4)	2 (51) 1 No Drips	2 (51) 1 No Drips
Smoke Emission, 4 mins., flaming, D <sub>s</sub>	FAR Part 25 Appendix F Part V	17	19
Heat Release Rate: Peak HRR, kw/m <sup>2</sup> Total HRR @ 2 min, kw-min/m <sup>2</sup>	FAR Part 25 Appendix F Part IV	27 25	29 33

\* M. C. Gill Corp. Test Procedure.



### Typical Facing Material Properties

Compressive Strength, psi (mPa)	ASTM D-695	42,800 (295)
Compressive Modulus, psi (mPa)	ASTM D-695	2.55 x 10 <sup>6</sup> (1.76 x 10 <sup>4</sup> )
Tensile Strength, psi (mPa)	ASTM D-638, Ty II	47,000 (324)
Tensile Modulus, psi (mPa)	ASTM D-638, Ty II	2.49 x 10 <sup>6</sup> (1.72 x 10 <sup>4</sup> )
Flexural Strength, psi (mPa)	ASTM D-790, Method I	54,900 (379)
Flexural Modulus, psi (mPa)	ASTM D-790, Method I	2.57 x 10 <sup>6</sup> (1.77 x 10 <sup>4</sup> )
In-Plane Shear Strength, psi (mPa)	ASTM D-3518	9,000 (62)
In-Plane Shear Modulus, psi (mPa)	ASTM D-3518	1.84 x 10 <sup>6</sup> (1.27 x 10 <sup>4</sup> )

### Typical Nomex<sup>®</sup> Core Properties

Property	1/8" (3.2 mm) cell (±10%)		
	1.8 pcf (29 kg/m <sup>3</sup> )	3.0 pcf (48 kg/m <sup>3</sup> )	4.0 pcf (64 kg/m <sup>3</sup> )
Normal Density	1.8 pcf (29 kg/m <sup>3</sup> )	3.0 pcf (48 kg/m <sup>3</sup> )	4.0 pcf (64 kg/m <sup>3</sup> )
Stabilized Compression, psi (mPa)	132 (0.91)	317 (2.19)	624 (4.30)
Shear - L Direction			
Ultimate Stress, psi (mPa)	102 (0.70)	178 (1.23)	367 (2.53)
Modulus, psi (mPa)	4371 (30.1)	8,408 (57.9)	10,200 (70.3)
Shear - W Direction			
Ultimate Stress, psi (mPa)	48 (0.33)	100 (0.69)	226 (1.56)
Modulus, psi (mPa)	2,010 (13.9)	3,823 (26.4)	7,100 (49.0)

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