



## PRODUCT DATA SHEET

# Gillfab® 5509

### DESCRIPTION

Gillfab® 5509 panel is a light weight, high strength and low smoke aircraft sandwich panel made from unidirectional carbon fiber reinforced phenolic facings bonded to Gillcore® HK Kevlar® honeycomb core.

### APPLICATIONS

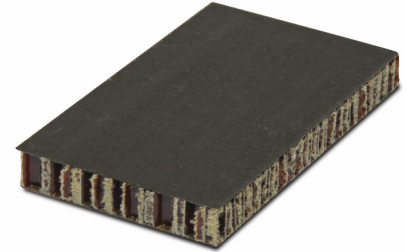
The panel is used as a floor panel for the cockpit, main and emergency electronics bays in Airbus Industrie A380-800 aircraft.

### FEATURES

- Fiberglass facing layer to protect against galvanic corrosion
- Light weight
- High strength
- Low smoke generation
- Fatigue resistant
- Recommended service temperature range: up to 180°F (82°C)

### AVAILABILITY

	5509 Ty I	5509 Ty II	5509 Ty III
Thickness, inch (mm)	0.380 (9.65)		
Facings thickness, face/back, inch (mm)	0.018/0.013 (0.46/0.33)	0.018/0.013 (0.46/0.33)	0.032/0.025 (0.81/0.64)
Length, inch (mm)	Typical 144 (3,658)		
Width, inch (mm)	Typical 48 (1,219)		
Honeycomb	Gillcore® HK low-density	Gillcore® HK medium-density	Gillcore® HK low-density



### CONSTRUCTION

- Adhesive:** Modified fire retardant phenolic  
**Core:** Gillcore® HK honeycomb  
**Facings Reinforcement:** Unidirectional carbon fiber  
**Facings Resin System:** Phenolic

### ALTERNATIVE GILL PRODUCTS

TGC Product No.	Difference
Gillfab® 4505	Floor panel with heavy-density Gillcore® HD Nomex® honeycomb and thicker facings for use in high traffic areas on A318/A319/A320/A321/A330/A340 aircraft.
Gillfab® 4605	Floor panel with medium-density Gillcore® HD Nomex® honeycomb and thinner facings for use in underseat areas on A318/A319/A320/A321/A330/A340 aircraft.

### SPECIFICATIONS

- ADET 0096 Ty 1-3



**HEALTH PRECAUTIONS**

This product is safe to use and apply when recommended precautions are followed. Before using this product, read and understand the Safety Data Sheet (SDS), which provides information on health, physical and environmental hazards, handling precautions and first aid recommendations. A SDS is available at <https://www.thegillcorp.com/msds.php>.

For industrial use only. Keep away from children. Additional information can be found at: [www.thegillcorp.com](http://www.thegillcorp.com). For sales and ordering information call 1-626-443-6094.

**PERFORMANCE PROPERTIES, TYPICAL**

The following tests are run in accordance with ADET 0096.

TGC Part Number		5509 Ty I	5509 Ty II
Weight, psf (kg/m <sup>2</sup> )		0.463 (2.26)	0.490 (2.39)
Long Beam Bending, lbs (N)	Ribbon	405 (1,801)	414 (1,842)
	Transverse	438 (1,948)	559 (2,485)
Deflection @ 100 lbs, inch (@ 445N, mm)	Ribbon	0.295 (7.5)	0.283 (7.2)
	Transverse	0.311 (7.9)	0.291 (7.4)
Panel Shear, lbs (N)		442 (1,965)	683 (3,039)
Drum Peel, face/back, in-lbs/3" width (N/76mm width)		47/49 (210/220)	53/54 (237/238)
Core Compression, psi (N/mm <sup>2</sup> )		870 (6.0)	1,088 (7.5)
Impact Strength, in-lbs (Nm)		20.0 (3.5)	18.8 (3.3)
Insert Shear, lbs (N)		2,096 (9,325)	2,176 (9,679)
In-Plane Shear, lbs/in (N/mm)		400 (70)	468 (82)
Indentation, lbs (N)		587 (2,613)	589 (2,618)
Warpage, in/ft (mm/m)		0.005 (0.4)	0.008 (0.7)
Roller Cart, cycles, 40 lbs/wheel (178 N/wheel)		No deformation at 80,000 cycle	No deformation at 80,000 cycle
Flammability		Meet FAR 25.853 Appendix F Part I	

Figures shown reflect typical values and should not be used as design specifications.

All recommendations, statements, values and technical data herein are based on tests The Gill Corporation believes to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. Users shall rely on their own information and tests to determine suitability of the product for the intended use and assume all risks and liability resulting from their use of the product. The Gill Corporation's sole responsibility shall be to replace that portion of the product that proves to be defective. The Gill Corporation will not be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements not contained in a written agreement signed by an officer of The Gill Corporation shall not be binding upon The Gill Corporation. Gillfab® and Gillcore® are registered trademarks of The Gill Corporation.