



PRODUCT DATA SHEET

Gillfloor® 4509

DESCRIPTION

Gillfloor® 4509 is a low smoke flooring panel made from unidirectional carbon fiber reinforced phenolic facings bonded to meta-aramid honeycomb.

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
- Low panel deflection under load and light weight
- Low smoke evolution in a fire
- Service temperature to 180°F (80°C)



AVAILABILITY

	Type 1 & 3	Type 2 & 4
Thickness, inch (mm)	0.390 (9.91)	
Facing, face/back, inch (mm)	0.014/0.014 (0.356/0.356) 0.015/0.015 (0.381/0.381)	
Length, inch (mm)	Typical 96 (2,438), Maximum 144 (3,658)	
Width, inch (mm)	Typical 48 (1,219), Maximum 60 (1,524)	
Honeycomb	Medium-density Gillcore® HD meta-aramid honeycomb	Light-density Gillcore® HD meta-aramid honeycomb



CONSTRUCTION

- Adhesive:** Phenolic film adhesive
Core: Light and medium-density Gillcore® HD honeycomb
Facings Reinforcement: Unidirectional carbon fiber
Facings Resin System: Phenolic

ALTERNATIVE GILL PRODUCTS

TGC Product No.	Difference
Gillfab® 4004	Panel made from Gillcore® HD core and unidirectional fiberglass reinforced with phenolic resin. An economical alternative of Gillfab® 4509.
Gillfab® 4009	Panel made from Gillcore® HD core and unidirectional carbon fiber reinforced with epoxy resin. Higher mechanical strength and higher in smoke generation.
Gillfab® 4109	Panel made from Gillcore® HD core and unidirectional carbon fiber reinforced with phenolic resin. The panel uses epoxy film adhesive in place of epoxy adhesive. The 4109 offers better surface finish for applications that require a smooth surface.

SPECIFICATIONS

- McDonnell Douglas Dwg. No. 7954400, Ty. 1 and 2
- FAR 25.853 - fire resistant



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. For sales and ordering information call 1-626-443-6094.

PERFORMANCE PROPERTIES, TYPICAL

The following tests are run in accordance with DAC 7954400 specification requirements.

TGC Part Number	4509 Type 1	4509 Type 2
Panel Weight, psf (kg/m ²)	0.52 (2.54)	0.42 (2.05)
Panel Thickness, inch (mm)	0.400 (10.16)	0.390 (9.91)
Impact Resistance, in-lbs (N-m)	26 (2.94)	24 (2.71)
Flatwise Compression, psi (Mpa)	1,568 (10.81)	574 (3.96)
Long Beam Bending, lbs (N)	500 (2,224)	434 (1,931)
Deflection at 100 lbs, inch (mm)	0.57 (6.7)	0.3 (7.4)
Drum Peel, in-lbs/3" width (N-m/76mm width)	26 (2.94)	24 (2.71)
Lap Shear Strength, psi (Mpa)	1,257 (8.67)	1,084 (7.47)
Warpage, in (mm)	0.002 (0.05)	0.005 (0.13)
Food Roller Cart @100lbs per wheel, cycles	>100,000	N/A
Smoke Density, D _s	25	22
Flammability	Meets FAR 25.853 and 855 AppF Part I	

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

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