



DESCRIPTION

Gillfloor® 4709 is a light-weight, high strength flooring panel made from unidirectional carbon fiber reinforced epoxy facings bonded to meta-aramid honeycomb core. Outer panel surfaces feature fiberglass overlay to help protect against galvanic corrosion.

APPLICATION

Light-weight, high-strength panels designed for use as flooring in passenger compartments of commercial aircraft where weight, durability and strength are a major consideration.

FEATURES

- Good impact strength
- Carbon facings achieve 10-12% weight savings as compared to unidirectional glass reinforced material
- Excellent machinability and bonding surfaces
- Resistant to galvanic corrosion
- Good strength-to-weight and stiffness-to-weight ratios
- Light weight and low panel deflection under load

AVAILABILITY

Thickness, inch (mm)	0.40 (10.16)
Length, inch (mm)	Typical 144 (3,658)
Width, inch (mm)	Typical 48 (1,219)

CONSTRUCTION

Adhesive	Epoxy film
Core	Gillcore® HD meta-aramid

GC Part Number	Type II	Type III
Areal weight, psf (kg/m ²)	0.56 (2.73)	0.45 (2.20)
Thickness, in (mm)	0.40 (10.2)	0.40 (10.2)
Long beam flexure, load, lbs (N)	390 (1735)	362 (1610)
Deflection at 100 lbs (445N) load, in (mm)	0.40 (10.2)	0.41 (10.4)
Long beam load, humidity exposed, lbs (N)	325 (1446)	304 (1352)
Panel shear, lbs (N)	1357 (6036)	913 (4061)
Drum peel, in-lbs/3" width (N/76-mm width)	33 (294)	37 (329)
In-plane shear, lbs/in (kN/m)	411 (72.0)	402 (70.4)
Insert shear, lbs (N)	1769 (7869)	1723 (7664)
Impact strength, in-lbs (N-m)	18 (2.0)	21 (2.4)
Stabilized core compression, lbs/sq in (kg/cm ²)	2547 (179.1)	976 (68.6)
Warpage, in/ft (mm/m)	0.002 (0.167)	0.001 (0.083)
Food cart roller test, cycles without failure	>120,000	>80,000
Flammability - 60 seconds vertical		
Self-extinguishing time, seconds	3.4	4.5
Burn length, in (mm)	1.8 (45.72)	1.9 (48.26)
Drip extinguish time, seconds	0	0
Flammability – 45 degree angle		
Self-extinguishing time, seconds	0	0
Penetration	No Penetration	No Penetration
Glow time, seconds	0	0
Specific optical density, Ds after 4 mins, max	168	151
Toxic gas emission, PPM, max		
CO	233	200
HCN	10	13