M.C. GILL CORPORATION

PRODUCT DATA SHEET

Gillfloor™ 4709

DESCRIPTION

Gillfloor™ 4709 is a light-weight flooring panel made from unidirectional carbon fiber reinforced epoxy facings bonded to Nomex® honeycomb core.



APPLICATIONS

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 Nomex® aramid honeycomb

Reinforcement: Unidirectional carbon fiber with fiberglass overlay

Resin System: Epoxy

Facing: Top: 0.010 inch (0.25 mm); Bottom: 0.010 inch (0.25 mm)

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HEALTH PRECAUTIONS

This product is safe to use and apply when recommended precautions are followed. Before using this product, read and understand the Material Safety Data Sheet (MSDS), which provides information on health, physical and environmental hazards, handling precautions and first aid recommendations. A MSDS is available at www.mcgillcorp.com/products/msds/html.

For industrial use only. Keep away from children. Additional information can be found at: www.mcgillcorp.com. For sales and ordering information call 1-626-443-6094.

PERFORMANCE PROPERTIES, TYPICAL

The following tests are run in accordance with BMS 4-20 (Boeing) specification test methods.

MCG Part Number	4709 Type II	4709 Type III & V
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, lbs/3" width (N/76-mm width)	33 (147)	37 (165)
In-plane shear, lbs/in (N/m)	411 (2237)	402 (2188)
Insert shear, lbs (N)	1769 (7869)	1723 (7664)
Impact strength, in-lbs (N-m)	32 (3.6)	35 (3.9)
Stabilized core compression, lbs/sq in (kg/cm^2)	2547 (179.1)	976 (68.6)
Warpage, in/ft (mm/m)	0.002 (2.4x10-5)	0.001 (1.2x10-5)
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
HF	<1.5	<1.5
HCL	<1	<1
SO2	<1	<1
NOx	20	13

All recommendations, statements and technical data herein are based on tests we believe 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. User shall rely on his own information and tests to determine suitability of the product for the intended use and assumes all risks and liability resulting from his use of the product. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. Neither seller nor manufacturer shall 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 other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller.

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