



Gilcore™ OXHD Honeycomb - Overexpanded

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Description

Overexpanded Gilcore HD is an aramid fiber (Nomex®) reinforced honeycomb which is impregnated with phenolic resin and whose cells are overexpanded to a rectangular shape to provide flexibility in curving or forming the honeycomb in the "W" direction.

Applications

- Interior aircraft panels including sidewalls, ceilings, galleys, and lavatories.
- Environmental systems ducting.
- Radomes.
- Exterior aircraft panels including trailing and leading edges, flaps, ailerons, access panels and doors.
- Ship and boat panels such as those dividing berthing areas and staterooms.
- Pleasure and racing boat hulls.

Features

- Formable.
- High strength-to-weight and rigidity-to-weight ratios.
- Thermal tolerance to 325°F.
- Low densities (1.8 and 3.0 pcf)
- High wet strength and corrosion resistance.
- Conforms to rigid smoke, toxicity, and flammability standards.
- Good fatigue and impact resistance.

Availability

Thickness:	Slices up to 2" thick .006"; slices >2 - 4" thick .010"; slices >4" thick .060"
Length:	Up to 99".
Width:	Up to 49".



Construction

Resin: Phenolic.
Reinforcements: Aramid fiber paper.

Standard

Thickness:	Up to 2.0"	+/- 0.006"
	2.01" to 4.00"	+0.010"/-0"
	>4.00"	+0.060"/-0"
	Full block (34")	+1.00"/-0

Tolerances

Length: +4"/-0" or as specified by customer
Width: +2"/-0" or as specified by customer

Specifications

- FAR 25.853

Properties of Gillfab HD Overexpanded Nomex Honeycomb

Designation	Cell Size Density (Gage)	Comprehensive Strength		Plate Shear			
		(ASTM D1621)	(ASTM C365)	(ASTM C273)			
		Bare	Stabilized	"L" Direction		"W" Direction	
		(Min. Avg.) PSI (N/mm ²)	(Min. Avg.) PSI (N/mm ²)	Strength (Min. Avg.) PSI (N/mm ²)	Modulus (Min. Avg.) KSI (N/mm ²)	Strength (Min. Avg.) PSI (N/mm ²)	Modulus (Min. Avg.) KSI (N/mm ²)
HD 3/16 - 1.8	3/16 - 1.8 (2)	70 (0.483)	85 (0.586)	45 (.310)	1.5 (10.34)	42 (.0290)	2.2(15.17)
HD 3/16 - 3.0	3/16 - 3.0 (2)	230 (1.586)	280 (1.931)	90 (0.621)	2.2 (15.21)	90 (0.621)	4.5 (31.03)

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