

# PK2 Para-Aramid Fiber Honeycomb

## Description:

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PK2 para-aramid fiber honeycomb is an extremely lightweight, high strength, non-metallic honeycomb manufactured with para-aramid fiber paper impregnated with a heat resistant phenolic resin. This core material exhibits improved performance characteristics over Meta-Aramid in the areas of weight, strength, stiffness and fatigue.

## Applications:

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PK2 honeycomb is a high performance non-metallic core which can replace fiberglass and Meta-Aramid honeycomb core materials to achieve significant weight reductions without sacrificing performance in most applications. PK2 honeycomb uses include boat decks, aircraft galleys, flooring, partitions, aircraft leading and trailing edges, radomes, flaps, access panels and doors.

## Features:

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- Up to 40% higher properties than comparable density meta-aramid honeycomb
- Extremely high strength to weight ratio
- Excellent thermal and moisture stability
- Improved shear strength and modulus
- Conforms to stringent smoke, toxicity and flammability standards
- High toughness
- Compatible with most adhesives used in sandwich composites
- Long shelf life. The mechanical properties are maintained for 10 years minimum if not exposed to moisture, weather or any normal hazard.

## Availability:

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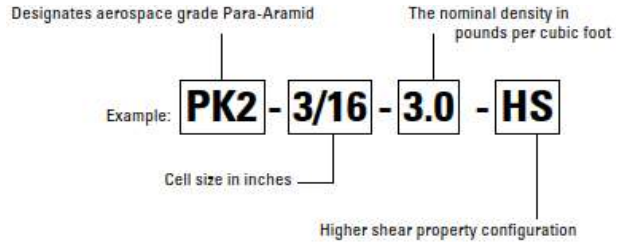
PK2 honeycomb is available in sheets, blocks or cut to size pieces in regular hexagonal configurations. Selected densities available in high shear (HS) configuration for higher stiffness.

<b>Cell Size:</b>	1/8" – 5/32"
<b>Densities:</b>	2.5 pcf - 6.0 pcf
<b>Sheet "Ribbon" (L):</b>	48" typical
<b>Sheet "Transverse" (W):</b>	96" typical
<b>Tolerances:</b>	Length: + 3", - 0" (60" for OV)
	Width: + 6", - 0"
	Thickness: ± .006" (under 2" thick)
	Density: ± 10%
	Cell Size: ± 10%

Special dimensions, sizes, tolerances and specifications can be provided upon request.

# PK2 Para-Aramid honeycomb is specified as follows:

Material - Cell Size - Density - Cell Configuration



CELL SIZE		NOMINAL DENSITY		COMPRESSIVE STRENGTH (BARE)		PLATE SHEAR STRENGTH "L" DIRECTION		PLATE SHEAR MODULUS "L" DIRECTION		PLATE SHEAR STRENGTH "W" DIRECTION		PLATE SHEAR MODULUS "W" DIRECTION	
				Typical		Typical		Typical		Typical		Typical	
in	mm	lb/ft <sup>3</sup>	Kg/m <sup>3</sup>	psi	Mpa	psi	Mpa	ksi	Gpa	psi	Mpa	ksi	Gpa
1/8	3.2	2.5	40	259	1.79	225	1.55	19.0	0.13	122	0.84	8.8	0.06
1/8	3.2	3	48	446	3.07	278	1.92	18.2	0.13	167	1.15	10.6	0.07
1/8	3.2	4	64	788	5.43	377	2.60	22.8	0.16	209	1.44	12.0	0.08
1/8	3.2	4.5	72	785	5.41	374	2.58	25.3	0.17	253	1.75	14.3	0.10
1/8	3.2	6	96	1216	8.38	421	2.90	30.4	0.21	326	2.24	17.0	0.12

Tested at 0.500" T per AMS STD 401 at room temperature.

The above data is based on various sample sizes and is for reference only.

Additional densities and configurations available upon request.



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