

PK2 Kevlar[®] N636 Para-Aramid Fiber Honeycomb



Description:

PK2 Kevlar® N636 para-aramid fiber honeycomb is an extremely lightweight, high strength, non-metallic honeycomb manufactured with para-aramid fiber paper (DuPont Kevlar® N636 or equivalent) impregnated with a heat resistant phenolic resin. This core material exhibits improved performance characteristics over Nomex® and Korex® in the areas of weight, strength, stiffness and fatigue.

Applications:

PK2 honeycomb is a high performance non-metallic core which can replace fiberglass and Nomex® 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:

- Up to 40% higher properties than comparable density Nomex[®] 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

Availability:

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

Cell Sizes: 1/8" - 3/16"

Densities: 2.0 pcf - 6.0 pcf

Sheet "Ribbon" (L): 48" typical

Sheet "Transverse" (W):

Tolerances: Length: + 3", - 0" (36" for OV)

96" typical

Width: + 6", - 0"

Thickness: ± .006" (under 2" thick)

Density: $\pm 10\%$ Cell Size: $\pm 10\%$

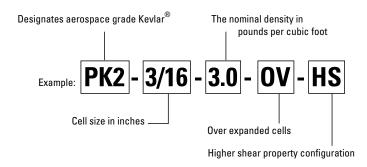
NOTE: Special dimensions, sizes, tolerances and specifications can be provided upon request.

Plascore, Inc. employs a quality management system in the manufacture of honeycomb core and composite panels that is ISO 9001:2000 certified.

PK2 Kevlar® honeycomb is specified as follows:

Material - Cell Size - Density - Cell Configuration

1/8" OV core can be over expanded only to a maximum of 20% over nominal cell size. ®Kevlar and ®Nomex are registered trademarks of E.I. DuPont de Nemours, Wilmington, Delaware.



PK2 Mechanical Properties*												
PLASCORE® Honeycomb Designation	DENSITY		COMPRESSIVE (BARE STRENGTH)		PLATE SHEAR "L" DIRECTION				PLATE SHEAR "W" DIRECTION			
					STRENGTH		MODULUS		STRENGTH		MODULUS	
	lb/ft³	kg/m³	psi	MPa	psi	MPa	ksi	GPa	psi	MPa	ksi	GPa
PK2-1/8-2.5	2.5	40.0	225	1.55	190	1.31	15.0	0.104	115	0.79	8.1	0.056
PK2-1/8-3.0	3.0	48.1	315	2.17	235	1.62	15.6	0.107	140	0.97	9.0	0.062
PK2-1/8-3.0 HS	3.0	48.1	305	2.10	270	1.86	21.0	0.145	160	1.10	12.7	0.088
PK2-1/8-4.5	4.5	72.1	600	4.14	345	2.38	17.2	0.118	215	1.48	9.6	0.066
PK2-1/8-4.5 HS	4.5	72.1	610	4.21	410	2.82	22.3	0.153	235	1.62	13.3	0.092
PK2-1/8-6.0	6.0	96.1	925	6.38	465	3.21	18.7	0.129	290	2.00	10.9	0.075
PK2-1/8-6.0 HS	6.0	96.1	1000	6.89	560	3.86	23.6	0.162	315	2.17	14.6	0.100
PK2-5/32-2.5	2.5	40.0	215	1.48	190	1.31	12.7	0.088	130	0.90	8.7	0.060
PK2-3/16-2.0	2.0	32.0	150	1.03	145	1.00	10.2	0.070	90	0.62	6.0	0.042
PK2-3/16-3.0	3.0	48.1	320	2.21	230	1.58	15.2	0.105	160	1.10	9.0	0.062
PK2-1/8-2.5-0V	2.5	40.0	220	1.52	180	1.24	13.0	0.090	135	0.93	10.0	0.069
PK2-1/8-3/0-0V	3.0	48.1	310	2.14	210	1.45	14.3	0.099	130	0.90	11.0	0.076
PK2-3/16-2.0-0V	2.0	32.0	145	1.00	70	0.48	4.1	0.028	85	0.59	8.4	0.058
PK2-3/16-3.0-0V	3.0	48.1	310	2.14	135	0.93	6.1	0.042	150	1.03	12.6	0.087

^{*} Preliminary or estimated values based on limited testing per MIL-STD-401 at room temperature.

IMPORTANT NOTICE: The information herein regarding our products, equipment and processes is believed to be reliable and to the best of our knowledge. We do not warrant the accuracy and completeness of any such information, whether expressed or implied, including warranties of fitness for a particular purpose. It is the user's or purchaser's responsibility to undertake sufficient testing to verify the suitability of our products for their own particular purpose. The information contained herein shall not be construed as inducement, permission or recommendation to infringe upon any patent rights or other rights of third parties.



Corporate Headquarters Europe **Plascore Incorporated** 615 N. Fairview St.

Zeeland, MI 49464-0170

(616) 772-1220 Phone (800) 630-9257 Toll Free

(616) 772-1289 Fax Email sales@plascore.com Web www.plascore.com

Plascore GmbH&CoKG

Feldborn 6 D-55444 Waldlaubersheim

Germany Phone +49(0) 6707-9143 13 +49(0) 6707-9143 40 Fax Email sales.europe@plascore.com

Web www.plascore.de

[©] Copyright Plascore Incorporated. 5/1/08

[®] Plascore and the Plascore logo are registered trademarks of Plascore Incorporated, Zeeland, Michigan.