

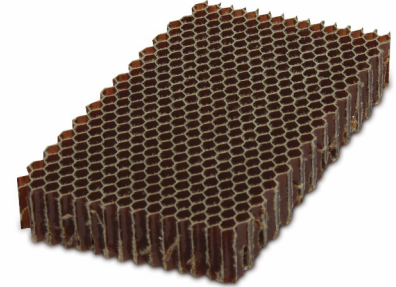


## PRODUCT DATA SHEET

# Gillcore® HK Honeycomb

### DESCRIPTION

Gillcore® HK is a Kevlar® aramid fiber reinforced honeycomb which is coated with heat resistant phenolic resin. Kevlar® honeycomb cores exhibit enhanced performance characteristics over Nomex® honeycomb core in the areas of weight, strength, stiffness and fatigue. Gillcore® HK provides a wide range of honeycomb types, including different cell sizes, cell geometries, paper thicknesses and densities, for commercial, military, aerospace and defense applications.



### APPLICATIONS

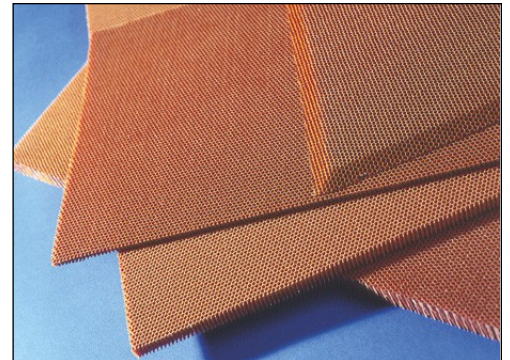
Interior aircraft panels including flooring, sidewalls, ceilings, galleys and lavatories.

Exterior aircraft panels including trailing and leading edges, flaps, ailerons, radomes, fairings, helicopter blades, access panels and doors.

Sports and leisure industry such as surfboards, dividing berthing areas, staterooms and hulls for high-performance boats and ships.

Ceilings, walls and floors of portable structures.

Heat formability for complex and contour components.



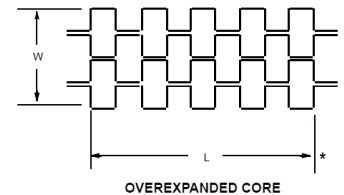
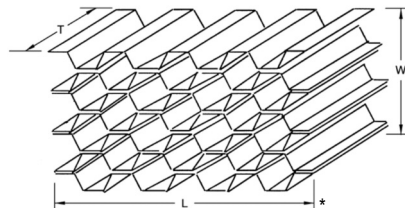
### FEATURES

- Extremely high strength to weight ratio
- High toughness, shear strength and shear modulus
- Corrosion resistance
- Fire resistant (self-extinguishing)
- Excellent thermal stability
- Good formability for curve forming

### AVAILABILITY

Hexagonal Shaped Core  
 L = Ribbon Dimension  
 W = Dimension normal to ribbon  
 T = Thickness dimension

\* Per BMS 8-124 specification



Available in sheet form or block form

Direction/Configuration	Hexagonal Core	Hexagonal Core	Overexpanded Core
	Ribbon dimension as block width	Ribbon dimension as block length	
L (Ribbon dimension)	Typical 48 inch (1,219 mm) Maximum 65 inch (1,651 mm)	Maximum 96 inch (2,438 mm)	Maximum 50 inch (1,270 mm)
W (Dimension normal to ribbon)	Typical 96 inch (2,438 mm) Maximum 144 inch (3,658 mm)	Maximum 48 inch (1,219 mm)	Maximum 144 inch (3,658 mm)
Thickness	0.200 inch (5.08 mm) - 34 inch (864 mm)		

### CONSTRUCTION

**Reinforcement:** Para-Aramid Kevlar® paper

**Resin:** Phenolic



SPECIFICATIONS

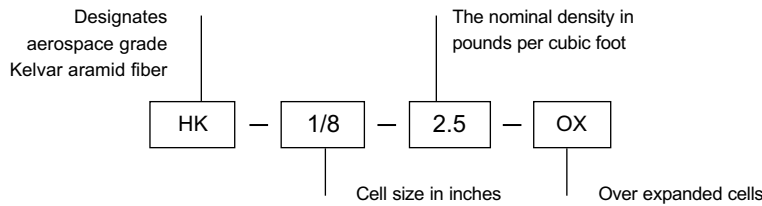
- Gillcore® Kevlar® honeycomb core is qualified to the following specifications:
  - Boeing BMS 8-124, Class 6, Type V, Grades 2.5, 3.0,4.0, 6.0; and Type VI, Grade 2.5.
  - Airbus Industrie: AIMS 11-01-004 Grades D,F,P,T,W (ABS5341-A3,A5,C1,C5,C8).
  - Bell Helicopter: 299-947-386: Type 1, Grade A, Classes 2.0, 3.0, 4.5, and 6.0.
  - Northrop-Grumman: ACS-MRS-5301, Class 1, 1/8" cell, 6 pcf density.
  - Lockheed-Martin: 5PTMDL17-D
 Meets flammability requirements of FAR 25.853 for cabin interiors and FAR 25.855 for cargo interiors.

HEALTH PRECAUTIONS

This product is safe to use and apply when recommended precautions are followed. Before using this product, read and understand the Safety Data Sheet (SDS), which provides information on health, physical and environmental hazards, handling precautions and first aid recommendations. A SDS is available at <https://www.thegillcorp.com/msds.php>.

For industrial use only. Keep away from children. Additional information can be found at: [www.thegillcorp.com](http://www.thegillcorp.com). For sales and ordering information call 1-626-443-6094.

PERFORMANCE PROPERTIES, TYPICAL



The following tests are run in accordance with BMS 8-124 specification requirements.

Gillcore® HK Honeycomb Description	Gillcore® HK Honeycomb Configuration	Compressive				Plate Shear					
		Bare		Stabilized		L Direction			W Direction		
		Strength		Strength		Strength		Modulus	Strength		Modulus
		TYP	MIN	TYP	MIN	TYP	MIN	TYP	TYP	MIN	TYP
		psi	psi	psi	psi	psi	psi	ksi	psi	psi	ksi
HK-1/8-2.5	HK1061	288	240	321	297	272	248	16.7	156	147	7.9
HK-1/8-3.0	HK131	390	341	422	352	281	247	17.8	146	126	8.2
HK-1/8-3.0*	HK132	378	345	403	374	304	276	22.2	164	151	10.5
HK-1/8-4.0	HK141	578	480	628	589	362	337	21.0	206	196	9.7
HK-1/8-4.5	HK1033	744	693	764	711	555	527	30.9	305	289	13.4
HK-1/8-6.0	HK162	1,131	1,006	1,190	1,062	524	496	27.0	362	338	14.6
HK-1/8-6.0*	HK163	1,187	1,100	1,246	1,170	621	575	37.2	417	391	16.8
HK-5/32-2.5	HK2061	282	260	310	285	232	204	13.8	135	118	8.3
HK-5/32-6.0	HK262	1060	995	1163	1082	517	502	25.7	394	378	14.0
HK-3/16-2.0	HK322	323	290	356	336	322	290	18.9	169	155	8.9
HK-3/16-2.5-OX	HK3061O	208	179	217	186	152	138	7.4	148	130	11.5

\*Made using thicker Kevlar® paper than the similar item above.



Gillcore® HK Honeycomb Description	Gillcore® HK Honeycomb Configuration	Cell Size	Density	Compressive				Plate Shear					
				Bare		Stabilized		L Direction			W Direction		
				Strength		Strength		Strength		Modulus	Strength		Modulus
				TYP	MIN	TYP	MIN	TYP	MIN	TYP	TYP	MIN	TYP
		mm	kg/m <sup>3</sup>	Mpa	Mpa	Mpa	Mpa	Mpa	Mpa	Gpa	Mpa	Mpa	Gpa
HK-1/8-2.5	HK1061	3.2	40	1.98	1.65	2.21	2.05	1.87	1.71	0.12	1.07	1.01	0.05
HK-1/8-3.0	HK131	3.2	48	2.69	2.35	2.91	2.43	1.94	1.70	0.12	1.01	0.87	0.06
HK-1/8-3.0*	HK132	3.2	48	2.60	2.38	2.78	2.58	2.09	1.90	0.15	1.13	1.04	0.07
HK-1/8-4.0	HK141	3.2	64	3.98	3.30	4.33	4.06	2.49	2.32	0.14	1.42	1.35	0.07
HK-1/8-4.5	HK1033	3.2	72	5.13	4.77	5.26	4.90	3.82	3.63	0.21	2.10	1.99	0.09
HK-1/8-6.0	HK162	3.2	96	7.79	6.93	8.20	7.32	3.61	3.42	0.19	2.49	2.33	0.10
HK-1/8-6.0*	HK163	3.2	96	8.18	7.58	8.58	8.06	4.28	3.96	0.26	2.87	2.69	0.12
HK-5/32-2.5	HK2061	4.0	40	1.94	1.79	2.14	1.97	1.60	1.41	0.10	0.93	0.81	0.06
HK-5/32-6.0	HK262	4.0	96	7.30	6.86	8.01	7.45	3.56	3.46	0.18	2.71	2.60	0.10
HK-3/16-2.0	HK322	4.8	32	2.23	2.00	2.45	2.32	2.22	2.00	0.13	1.16	1.07	0.06
HK-3/16-2.5-OX	HK3061O	4.8	40	1.44	1.23	1.50	1.28	1.05	0.95	0.05	1.02	0.90	0.08

\*Made using thicker Kevlar® paper than the similar item above.

**Flammability:** Gillcore® HK honeycomb meets the flammability requirements of BMS 8-124.

**Water migration:** Gillcore® HK honeycomb does not exceed 1 cell migration in 24 hours when tested per BMS 8-124.

Figures shown reflect typical values and should not be used as design specifications.

All recommendations, statements, values and technical data herein are based on tests The Gill Corporation believes 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. Users shall rely on their own information and tests to determine suitability of the product for the intended use and assume all risks and liability resulting from their use of the product. The Gill Corporation's sole responsibility shall be to replace that portion of the product that proves to be defective. The Gill Corporation will not 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 not contained in a written agreement signed by an officer of The Gill Corporation shall not be binding upon The Gill Corporation. Gillcore® is a registered trademark of The Gill Corporation.