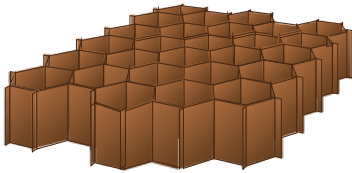


# PN2 Aerospace Grade Meta-Aramid Fiber Honeycomb



## Description:

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PN2 aerospace grade aramid fiber honeycomb exhibits outstanding flammability properties. It is manufactured from Meta-Aramid paper and coated with a heat resistant phenolic resin.

## Applications:

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PN2 honeycomb uses include aircraft galleys, flooring, partitions, aircraft leading and trailing edges, missile wings, radomes, antennas, military shelters, fuel tanks, helicopter rotor blades and navy bulkhead joiner panels.

## Features:

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- Fire resistant (self-extinguishing)
- High strength to weight ratio
- Corrosion Resistant
- Excellent dielectric properties
- Thermally insulating
- High toughness
- Excellent creep and fatigue performance
- Good thermal stability
- Densities as low as 1.5 lb/ft<sup>3</sup> (24 kg/m<sup>3</sup>)
- Over expanded cell configuration suitable for forming simple curves
- 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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PN2 honeycomb is available in sheets, blocks or cut to size pieces in both regular hexagonal and over expanded (OV) cell configurations.

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

**Densities:** 1.8 pcf - 9.0 pcf

**Sheet "Ribbon" (L):** 48" typical

**Sheet "Transverse" (W):** 96" typical

**Tolerances:** Length: + 3", - 0" (60" for OV)

Width: + 6", - 0"

Thickness: ± .006" (under 2" thick)

Density: ± 10%

Cell Size: ± 10%

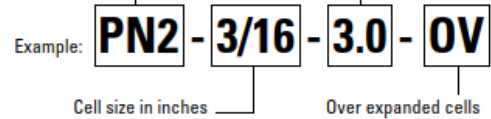
**NOTE:** Special dimensions, sizes, tolerances and specifications can be provided upon request.

# PN2 aerospace grade Meta-Aramid fiber honeycomb is specified as follows:

Material - Cell Size - Density - Cell Configuration

Designates aerospace grade Meta-Aramid fiber

The nominal density in pounds per cubic foot



## PN2 Meta-Aramid Mechanical Properties

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		Minimum		Typical		Minimum		Typical		Typical		Minimum		Typical			
in	mm	lb/Ft <sup>3</sup>	Kg/m <sup>3</sup>	psi	Mpa	psi	Mpa	psi	Mpa	psi	Mpa	ksi	Gpa	psi	Mpa	psi	Mpa	psi	Mpa	ksi	Gpa
1/8	3.2	1.8	29	107	0.74	70	0.48	94	0.65	65	0.45	5.6	0.04	48	0.33	36	0.25	2.2	0.02		
1/8	3.2	2	32	141	0.97	93	0.64	110	0.76	70	0.48	5.6	0.04	57	0.39	40	0.27	2.6	0.02		
1/8	3.2	2.3	37	201	1.39	120	0.83	129	0.89	85	0.58	6.1	0.04	67	0.46	48	0.33	3.1	0.02		
1/8	3.2	3	48	326	2.25	180	1.24	206	1.42	162	1.12	7.9	0.05	101	0.70	85	0.59	4.0	0.03		
1/8	3.2	4	64	645	4.45	330	2.28	261	1.80	225	1.55	9.7	0.07	134	0.93	112	0.77	5.5	0.04		
1/8	3.2	4.5	72	773	5.33	465	3.21	289	1.99	206	1.42	10.5	0.07	154	1.06	102	0.70	6.1	0.04		
1/8	3.2	5	80	929	6.41	600	4.14	311	2.14	235	1.62	11.2	0.08	166	1.15	120	0.83	6.7	0.05		
1/8	3.2	6	96	1115	7.69	800	5.52	420	2.89	260	1.79	14.1	0.10	236	1.63	135	0.93	8.4	0.06		
1/8	3.2	8	128	1712	11.81	1100	7.59	563	3.88	355	2.45	20.7	0.14	374	2.58	190	1.31	10.4	0.07		
1/8	3.2	9	144	2530	17.45	1400	9.66	441	3.04	370	2.55	24.1	0.17	304	2.10	240	1.66	15.9	0.11		
3/16	4.8	1.4	22	48	0.33	36	0.25	45	0.31	35	0.24	2.7	0.02	30	0.20	21	0.14	1.7	0.01		
3/16	4.8	2	32	131	0.90	90	0.62	112	0.77	72	0.50	5.1	0.04	65	0.45	40	0.28	3.2	0.02		
3/16	4.8	3	48	418	2.88	180	1.24	176	1.21	135	0.93	6.2	0.04	99	0.68	67	0.46	4.6	0.03		
3/16	4.8	4	64	583	4.02	320	2.21	291	2.01	225	1.55	10.8	0.07	165	1.14	112	0.77	5.9	0.04		
3/16	4.8	6	96	1104	7.62	580	4.00	432	2.98	330	2.28	15.5	0.11	250	1.73	150	1.03	8.2	0.06		
1/4	6.4	2	32	190	1.31	80	0.55	119	0.82	72	0.50	5.0	0.03	56	0.38	36	0.25	2.7	0.02		
1/4	6.4	3.1	50	433	2.98	180	1.24	178	1.23	135	0.93	5.9	0.04	106	0.73	60	0.41	4.8	0.03		
1/4	6.4	4	64	662	4.57	310	2.14	239	1.65	200	1.38	9.1	0.06	160	1.10	95	0.66	6.4	0.04		
3/8	9.6	3	48	319	2.20	175	1.21	215	1.48	110	0.76	7.5	0.05	121	0.84	55	0.38	4.1	0.03		
1/8 OV	3.2	3	48	366	2.52	223	1.54	135	0.93	94	0.65	5.7	0.04	143	0.99	95	0.65	7.4	0.05		
3/16 OV	4.8	1.8	29	89	0.61	70	0.48	56	0.39	45	0.31	2.1	0.01	65	0.45	35	0.24	3.9	0.03		
3/16 OV	4.8	2.3	37	150	1.04	102	0.70	78	0.54	76	0.52	2.4	0.02	92	0.64	76	0.52	5.2	0.04		
3/16 OV	4.8	3	48	319	2.20	250	1.72	111	0.76	93	0.64	3.0	0.02	148	1.02	116	0.80	7.7	0.05		
3/16 OV	4.8	4	64	528	3.64	352	2.42	146	1.01	104	0.72	3.8	0.03	219	1.51	151	1.04	10.9	0.08		
1/4 OV	6.4	3.5	48	388	2.68	254	1.75	113	0.78	84	0.58	3.2	0.02	175	1.20	128	0.88	9.2	0.06		
3/8 OV	9.6	3	48	240	1.66	192	1.33	116	0.80	93	0.64	3.1	0.02	172	1.19	137	0.95	8.4	0.06		

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.



Plascore, Inc., employs a quality management system that is Nadcap, AS9100, ISO 9001 and ISO 14001 certified.

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