



# Advanced Honeycomb Technologies, Inc.

## ARAMID (NOMEX) HONEYCOMB ... COMMERCIAL GRADE ... AHN 7800

### AHN 7800 ARAMID FIBER/PHENOLIC COATED HONEYCOMB revised 1/05/93

AHN 7800 is a commercial grade of nomex honeycomb particularly suited for use where resistance to corrosive attack and moisture are important. This material exhibits good strength characteristics and is fire resistant. It is available in a variety of cell sizes and densities to suit most purposes. Typical applications include lightweight non-structural bulkheads for ships, joiner panels, shelters, antennas, and auto body panels. This material is not intended for aircraft or aerospace applications. This material also exhibits good thermal insulation properties and also has good dielectric properties. This honeycomb is easily machined, formed, and shaped and well suited to adhesive bonding.

### PRODUCT DESIGNATION

A wide variety of cell sizes, web gauges, resin coating weights, and cell shapes are available. Typical strength characteristics are illustrated on the reverse side. The products are designated as follows:

AHN.....ADVANCED HONEYCOMB NOMEX

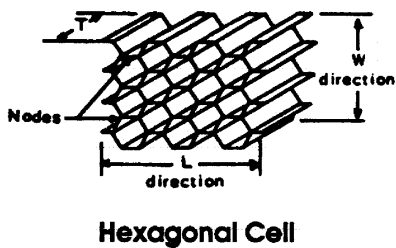
7800.....COMMERCIAL GRADE

1/4.....CELL SIZE in inches

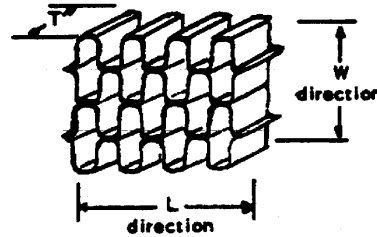
3.0.....DENSITY in pounds per cubic foot

(2).....THICKNESS OF ARAMID in mils (this may not be specified)

O.X. ....INDICATES OVER-EXPANDED CELL SHAPE (for curved surfaces, if omitted the cell shape is hexagonal)



**Hexagonal Cell**



**Over-Expanded Cell**

### SPECIFICATIONS

AHN 7800 is manufactured from a commercial grade Nomex paper from DuPont and does not have the mechanical properties and flammability resistance levels required and specified for safety and performance in aircraft end-users. Typical mechanical properties are listed on the reverse side of this brochure.

### AVAILABILITY

AHN 7800 is supplied in standard sheet sizes of 48" L by 96" W for hexagonal shaped cells and 38" L by 96" W for over-expanded shaped cells. The sheet thickness can be custom cut from .060 inches to 23 1/2 inches thick depending on the material cell size and density.

Special sheet sizes, both larger and smaller are available on a special order basis. Because of the special size, a minimum order may be required.

### SIZE TOLERANCES

Length (W) & Width (L) = -0 +4 inches

Thickness (T) = +/- .006 up to 2.00 inches

= .010 to 4.00 inches

= .060 above 4.00 inches

*Closer tolerances are possible and may carry a premium price.*



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### MECHANICAL PROPERTIES OF AHN7800 COMMERCIAL GRADE ARAMID NOMEX HONEYCOMB

Product Designation Cell Density	Compressive		Plate Shear	
	Bare	Stabilized	L Direction	W Direction
	Strength psi	Strength psi	Strength psi	Strength psi
<b>Hexagonal Cell</b>	<b>typ</b>	<b>typ</b>	<b>typ</b>	<b>typ</b>
AHN 7800-1/8-3.0	275	300	150	90
AHN 7800-3/16-2.0	117	130	72	40
AHN 7800-3/16-3.0	220	330	120	75
AHN 7800-3/16-4.0	360	500	230	115
AHN 7800-1/4-3.0	250	275	120	80
AHN 7800-3/8-1.5	75	85	50	25
Over-Expanded Cell				
AHN 7800-3/16-1.8 OX	95	110	55	51
AHN 7800-3/16-3.0 OX	285	315	95	95
AHN 7800-3/16-4.0 OX	550	600	120	120

All tests are per MIL--STD--401B, at core thickness of .500". Typ indicates averages of typical production test results, actual results may be lower.

**INDUSTRIAL USE ONLY** The above is made in lieu of all warranties, expressed, or implied: Seller's only obligation shall be to replace such quantity of this product which has proven to not substantially comply with the data presented in this bulletin. In the event of discovery of a nonconforming product, Seller shall not be liable for any commercial loss or damage, direct or consequential, arising out of the use of the inability to use the product. Before using, Buyer shall determine the suitability of the product for his intended purpose, and Buyer assumes all risk and liability whatsoever in connection therein. Statements relating to possible use of our product are not guarantees that such use is free of patent infringement or that they are approved for such use by any agency. The foregoing may not be changed except by an agreement signed by an officer of Seller.