PN1 Commercial Grade Aramid Fiber Honeycomb

Description:
PN1 commercial grade aramid fiber honeycomb is manufactured from DuPont Nomex® paper (or equivalent) and coated with a heat resistant phenolic resin.

Features:
- 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 2.0 lb/ft³ (32 kg/m³)
- Over expanded cell configuration suitable for forming simple curves
- Compatible with most adhesives used in sandwich composites

Applications:
PN1 honeycomb uses include boat hulls, auto racing bodies, train car panels, ship panels, ground transportation structures, military shelters, ground antennas and special purpose panels.

Availability:
PN1 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” - 1/4” (other cell sizes on request)
Densities: 2.0 pcf - 6.0 pcf
Sheet “Ribbon” (L): 48” typical
Sheet “Transverse” (W): 96” typical

Tolerances:
Length: ± 3”, - 0” (36” for OV)
Width: ± 6”, - 0”
Thickness: ± .006” (under 2” thick)
Density: ± 15%
Cell Size: ± 15%

NOTE: Special dimensions, sizes and tolerances can be provided upon request.
PN1 commercial grade aramid fiber honeycomb is specified as follows:

Material - Cell Size - Density - Cell Configuration

Note: 1/8" OV core can be over expanded only to a maximum of 20% over nominal cell size.

Designates commercial grade aramid fiber

Example: **PN1 - 3/16 - 3.0 - OV**

The nominal density in pounds per cubic foot

Cell size in inches

Over expanded cells

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### PN1 Mechanical Properties

<table>
<thead>
<tr>
<th>PLASCORE® Honeycomb Designation</th>
<th>DENSITY</th>
<th>COMPRESSIVE BARE</th>
<th>PLATE SHEAR &quot;L&quot; DIRECTION</th>
<th>PLATE SHEAR &quot;W&quot; DIRECTION</th>
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<td>lb/ft²</td>
<td>psi</td>
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* Estimated or interpolated values based on limited testing per MIL-C-81968 at room temperature.

**Note:** The above data is based on variable sample sizes and is subject to change with continues manufacturing and testing of PN1 honeycomb core blocks.

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