PN1 Commercial Grade Meta-Aramid Fiber Honeycomb

Description:
PN1 commercial grade aramid fiber honeycomb is manufactured from Meta-Aramid paper 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
- Long shelf life. The mechanical properties referenced are maintained for 10 years minimum if not exposed to moisture, weather or any normal hazard.

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 Meta-Aramid fiber honeycomb is specified as follows:

Material - Cell Size - Density - Cell Configuration

PN1 commercial grade Meta-Aramid Fiber Honeycomb is specified as follows:

- **Material**
- **Cell Size**
- **Density**
- **Cell Configuration**

Example:

| PN1 - 3/16 - 3.0 - OV |

- Designates commercial grade aramid fiber
- The nominal density in pounds per cubic foot
- Cell size in inches
- Over expanded cells

### PN1 Meta-Aramid Commercial Mechanical Properties

<table>
<thead>
<tr>
<th>CELL SIZE</th>
<th>NOMINAL DENSITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>in mm</td>
<td>lb/ft³ Kg/m³</td>
</tr>
<tr>
<td>1/8</td>
<td>3.2 3.0 48</td>
</tr>
<tr>
<td>1/8</td>
<td>3.2 4.0 64</td>
</tr>
<tr>
<td>1/8</td>
<td>3.2 5.0 80</td>
</tr>
<tr>
<td>1/8</td>
<td>3.2 6.0 96</td>
</tr>
<tr>
<td>3/16</td>
<td>4.8 2.0 32</td>
</tr>
<tr>
<td>3/16</td>
<td>4.8 3.0 48</td>
</tr>
<tr>
<td>3/16</td>
<td>4.8 4.0 64</td>
</tr>
<tr>
<td>3/16</td>
<td>4.8 6.0 96</td>
</tr>
<tr>
<td>1/4</td>
<td>6.4 3.0 48</td>
</tr>
<tr>
<td>1/4</td>
<td>6.4 4.0 64</td>
</tr>
<tr>
<td>1/8 OV</td>
<td>3.2 3.0 48</td>
</tr>
<tr>
<td>1/8 OV-20%</td>
<td>3.2 4.0 64</td>
</tr>
<tr>
<td>3/16 OV</td>
<td>4.8 2.0 32</td>
</tr>
<tr>
<td>3/16 OV</td>
<td>4.8 2.5 40</td>
</tr>
<tr>
<td>3/16 OV</td>
<td>4.8 3.0 48</td>
</tr>
<tr>
<td>3/16 OV</td>
<td>4.8 4.0 64</td>
</tr>
</tbody>
</table>

### Notes:
- Additional densities and configurations available upon request.
- Tested at 0.500"T per AMS STD 401 at room temperature.
- Certificates of conformance are not provided. Values stated are for reference only.

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

IMPORTANT NOTICE: The information contained in these materials regarding Plascore's products, processes, or equipment, is intended to be up to date, accurate, and complete. However, Plascore cannot warrant that this is always the case. Accordingly, it is a purchaser's or user's responsibility to perform sufficient testing and evaluation to determine the suitability of Plascore's products for a particular purpose. Information in these materials and product specifications does not constitute an offer to sell. Your submission of an order to Plascore constitutes an offer to purchase which, if accepted by Plascore, shall be subject to Plascore's terms and conditions of sale. PLASCORE MAKES NO WARRANTIES OF ANY KIND REGARDING THESE MATERIALS OR INFORMATION, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Plascore owns and shall retain all worldwide rights in its intellectual property, and any other trademarks used in these materials are the property of their respective owners. The information in these materials shall not be construed as an inducement, permission, or recommendation to infringe any patent or other intellectual property rights of any third parties.