## Honeycomb Cores

A full product listing can be found at www.plascore.com

### PK2 Kevlar® N636 Para-Aramid Fiber Honeycomb
Manufactured with para-aramid fiber paper (DuPont Kevlar® N636 or equivalent) coated with a heat resistant phenolic resin. Exhibits improved performance characteristics over Nomex®.

- Up to 40% higher properties than Nomex® honeycomb
- Improved shear strength and modulus
- Extremely high strength to weight ratio
- Excellent thermal and moisture stability
- Conforms to stringent smoke, toxicity and flammability standards

### PN2 Aerospace Grade Aramid Fiber Honeycomb
Manufactured from DuPont Nomex® paper (or equivalent) and coated with a heat resistant phenolic resin.

- High strength to weight ratio
- Fire resistant (self extinguishing)
- Corrosion resistant, thermally insulating
- Excellent dielectric properties
- Excellent creep and fatigue performance
- Good thermal stability
- Over expanded cell configuration suitable for forming simple curves
- Compatible with most adhesives

### PN1 Commercial Grade Aramid Fiber Honeycomb
Manufactured from DuPont Nomex® paper (or equivalent) and coated with a heat resistant phenolic resin.

- High strength to weight ratio
- Fire resistant (self extinguishing)
- Corrosion resistant, thermally insulating
- Excellent dielectric properties
- Excellent creep and fatigue performance
- Good thermal stability
- Over expanded cell configuration suitable for forming simple curves
- Compatible with most adhesives

### PAMG 5052 Aluminum Honeycomb
Made from 5052 aluminum alloy foil and meets all the requirements of AMS(MIL)-C-7438.

- Available with XR1 or PA3 coating
- High strength to weight ratio
- Elevated use temperatures
- High thermal conductivity
- Excellent moisture and corrosion resistance
- Flame resistant and fungi resistant
- Superior strength over commercial grade aluminum honeycomb

### PAMG 5056 Aluminum Honeycomb
Made from 5056 aluminum alloy foil and meets all the requirements of AMS(MIL)-C-7438.

- Available with XR1 or PA3 coating
- High strength to weight ratio
- Elevated use temperatures
- High thermal conductivity
- Excellent moisture and corrosion resistance
- Flame resistant and fungi resistant
- Superior strength over 5052 and commercial grade aluminum honeycomb

### PAHD 5052 Aluminum Honeycomb
Made from 5052 aluminum alloy foil and can be tested in accordance with customer requirements.

- Available with XR1 or PA3 coating
- Elevated use temperatures
- High thermal conductivity
- Flame resistant
- Excellent moisture and corrosion resistance
- Fungi resistant
- High strength
- Machinable
- Roll formable

### PC2 Polycarbonate Honeycomb
PC2 polycarbonate honeycomb exhibits a unique cell structure. The core has 3 orientations vs. the 2 orientations common with other honeycomb, making its properties more uniform. Each cell has a tubular form and is inherently stable.

- Excellent dielectric properties
- Good thermal and electric insulator
- Conductive grades available
- Fire, corrosion and fungi resistant
- Sandwich skins can be melted to core
- Use temperatures below 200°F
- Small cell sizes at high densities
- Available transparent and in colors

### PP Polypropylene Honeycomb
Supplied with or without a non-woven polyester veil for better bonding. It is also supplied with or without a film barrier under the polyester veil to limit the amount of resin consumption.

- High strength to weight ratio
- Corrosion, fungi, rot, chemical and moisture resistant
- Sound and vibration dampening
- Energy absorbing
- Thermoformable
- Temperature use to 180°F
- Recyclable
### PN2 Typical Mechanical Properties

<table>
<thead>
<tr>
<th>Designation</th>
<th>DENSITY</th>
<th>COMPRESSIVE (BARE) STRENGTH</th>
<th>PLATE SHEAR “L” DIRECTION</th>
<th>PLATE SHEAR “W” DIRECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PK2-1/8-2.5</td>
<td>2.5 40.0 225 1.55 – – – –</td>
<td>190 1.31 – – – –</td>
<td>15.0 0.104 115 0.79 – –</td>
<td>8.1 0.056</td>
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<tr>
<td>PK2-1/8-3.0</td>
<td>3.0 48.1 315 2.17 – – – –</td>
<td>235 1.62 – – – –</td>
<td>15.6 0.107 140 0.97 – –</td>
<td>9.0 0.062</td>
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<tr>
<td>PN1-1/8-3.0</td>
<td>3.0 48 280 1.93 190 1.31</td>
<td>195 1.34 133 0.92 6.4 0.044</td>
<td>95 0.66 70 0.48 3.3 0.033</td>
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<tr>
<td>PN1-2/3-3.0</td>
<td>3.0 48 290 2.00 190 1.31</td>
<td>175 1.21 133 0.92 5.8 0.040</td>
<td>105 0.72 64 0.44 3.9 0.027</td>
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<tr>
<td>PN2-1/8-3.0</td>
<td>3.0 48 270 1.86 190 1.31</td>
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### PN2-3/16-3.0-DV Mechanical Properties

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<tr>
<td>PN2-3/16-3.0-DV</td>
<td>3.0 48 270 1.86 238 1.64</td>
<td>110 0.76 71 0.49 3.2 0.022</td>
<td>130 0.90 71 0.49 6.3 0.043</td>
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<td>PAMG 5052</td>
<td>1.8 29 85 0.59 74 0.51</td>
<td>75 0.52 60 0.41 3.8 0.026</td>
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