PAHD-XR1 5052 Corrugated Aluminum Honeycomb

Description:
PAHD-XR1 5052 corrugated aerospace grade aluminum honeycomb is a high density core material which offers superior strength over expanded aluminum honeycomb. PAHD-XR1 5052 honeycomb is made from 5052 aluminum alloy foil and can be tested in accordance with customer requirements.

Applications:
PAHD-XR1 5052 honeycomb uses include engine nacelles, roll formed applications, energy absorption, anchor points, reinforcements, and other applications where light weight high strength materials are required. PAHD-XR1 5052 honeycomb is suitable for applications where materials with high compression and shear values are required.

Cell Configurations:
- STD - Standard Hexagonal
- R2 - Bisected Hexagonal
- R2S(DG) - Bisected Staggered [Different Gauge]
- 2R2S - Reinforced Bisected Staggered
- R2S-Cross - Alternating Cell Axis for multi-axis strength (limited block size)

Availability:
PAHD-XR1 5052 honeycomb is available in three forms: untrimmed sheets, cut to size sheets, and machined components. Density is dependant on cell size and configuration.

Features:
- Elevated use temperatures
- High thermal conductivity
- Flame resistant
- Excellent moisture and corrosion resistance
- Fungi resistant
- High strength
- Machinable
- Roll formable

Corrosion Resistance
The chromated XR1 coating offers excellent protection for honeycomb cores exposed to corrosive environments, meeting the requirements of AMS C7438 CL2.
PAHD-XR1 5052 Corrugated HD Mechanical Properties (Typical)

<table>
<thead>
<tr>
<th>CELL SIZE</th>
<th>CONFIGURATION</th>
<th>NOMINAL DENSITY</th>
<th>COMRESSIVE STRENGTH (Bare)</th>
<th>COMRESSIVE STRENGTH (Stabilized)</th>
<th>FLEXURAL SHEAR STRENGTH &quot;L&quot; DIRECTION</th>
<th>FLEXURAL SHEAR STRENGTH &quot;W&quot; DIRECTION</th>
<th>CRUSH STRENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>in</td>
<td>mm</td>
<td>lb/ft³ Kg/m³</td>
<td>psi</td>
<td>psi Mpa</td>
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<td>STD 22.1 354</td>
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Note: Additional densities and configurations available upon request.

The above data is based on various sample sizes and is for reference only.

Tested at 0.625" T per AMS STD 401 at room temperature.