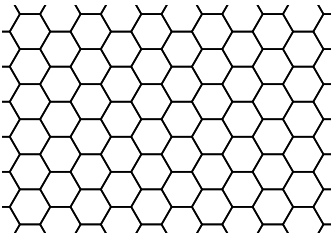
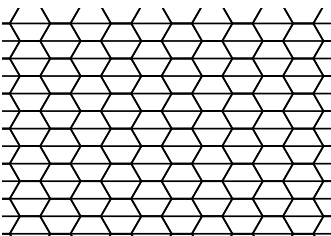


PAHD-XR1 5052 Corrugated Aluminum Honeycomb

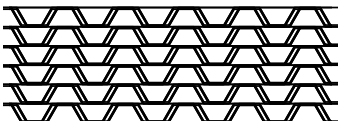
STD



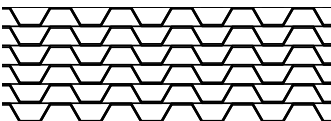
R2



2R25



R25



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)

Features:

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

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.

| | |
|--------------------------------|-------------------------------------|
| Cell Sizes: | 1/8" - 3/16" |
| Densities: | 14.5 pcf - 55.0 pcf |
| Sheet "Ribbon" (L): | 36" typical |
| Sheet "Transverse" (W): | 30" typical |
| Tolerances: | Length: + 6", - 0" |
| | Width: + 6", - 0" |
| | Thickness: ± .010" (under 4" thick) |

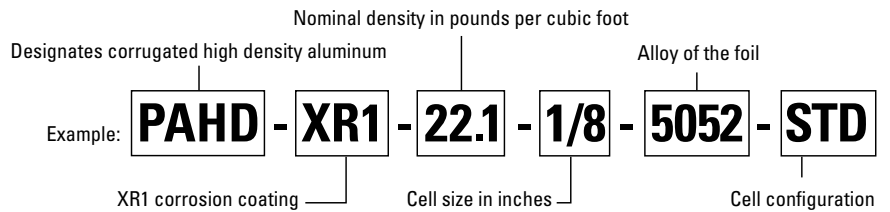
NOTE: Special dimensions, sizes, tolerances, and CNC machining can be provided upon request.

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 aluminum honeycomb is specified as follows:

Material - Density - Cell Size - Foil Thickness - Perforation - Alloy - Corrosion Class - Construction - Cell Configuration



PAHD-XR1 5052 Corrugated HD Mechanical Properties (Typical)

| CELL SIZE | | CONFIGURATION | NOMINAL DENSITY | | COMPRESSIVE STRENGTH (Bare) | | COMPRESSIVE STRENGTH (Stabilized) | | FLEXURAL SHEAR STRENGTH "L" DIRECTION | | FLEXURAL SHEAR STRENGTH "W" DIRECTION | | CRUSH STRENGTH | |
|-----------|-----|---------------|--------------------|-------------------|-----------------------------|-------|-----------------------------------|-------|---------------------------------------|-------|---------------------------------------|-------|----------------|-------|
| in | mm | | lb/Ft ³ | Kg/m ³ | psi | Mpa | psi | Mpa | psi | Mpa | psi | Mpa | psi | Mpa |
| 1/8 | 3.2 | STD | 14.5 | 232 | 2900 | 20.00 | 3000 | 20.69 | 2100 | 14.48 | 1500 | 10.34 | 2000 | 13.79 |
| 1/8 | 3.2 | STD | 22.1 | 354 | 5000 | 34.48 | 5100 | 35.16 | 2800 | 19.30 | 1900 | 13.10 | 4050 | 27.92 |
| 1/8 | 3.2 | R2 | 35.0 | 560 | 8200 | 56.54 | 8500 | 58.61 | 4100 | 28.27 | 2000 | 13.79 | 5600 | 38.61 |
| 1/8 | 3.2 | 2R2S | 55.0 | 881 | 8500 | 58.61 | 10000 | 68.95 | 4500 | 31.02 | 1500 | 10.34 | 8000 | 55.15 |
| 3/16 | 4.8 | STD | 15.7 | 251 | 3200 | 22.06 | 3300 | 22.75 | 2500 | 17.24 | 1500 | 10.34 | 2200 | 15.17 |
| 3/16 | 4.8 | STD | 22.0 | 352 | 4900 | 33.79 | 5200 | 35.85 | 2700 | 18.61 | 1600 | 11.03 | 2600 | 17.92 |
| 3/16 | 4.8 | STD | 25.0 | 400 | 5500 | 37.92 | 5600 | 38.61 | 3200 | 22.06 | 1700 | 11.72 | 2800 | 19.30 |

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.



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

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