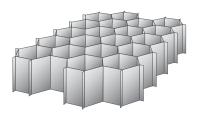


PAMG-PA3 5052 Aluminum Honeycomb



Description:

PAMG-PA3 5052 aerospace grade aluminum honeycomb is a phosphoric acid anodized lightweight core material which offers superior corrosion resistance and node bond strength over traditional organo-metallic coated aluminum honeycomb. PAMG-PA3 5052 honeycomb is made from 5052 aluminum alloy foil and meets all the requirements of AMS C7438 Rev A Class 1.

Applications:

PAMG-PA3 5052 honeycomb uses include aircraft nacelles, aircraft leading and trailing edges, launcher structures, fan casings, fuel cells, fuselage components, and satellite structures. PAMG-PA3 5052 honeycomb is suitable for applications where materials conforming to AMS C7438 Rev A Class 1 are required.

Features:

- Elevated use temperatures
- · High thermal conductivity
- · Flame resistant
- Excellent moisture and corrosion resistance
- Fungi resistant
- · Low weight / High strength
- Improved node bond strength for increased formability

Availability:

PAMG-PA3 5052 honeycomb is available in four forms: unexpanded blocks, unexpanded slices, untrimmed expanded sheets and cut-to-size expanded sheets. It is also available with or without cell perforations to facilitate cell venting for certain applications. Plascore PAMG-PA3 honeycomb is currently not available for 0.0007" foil.

Cell Sizes: 1/8" - 3/8"

Densities: 2.3 pcf - 8.1 pcf

Sheet "Ribbon" (L): 48" typical - 72" max

Sheet "Transverse" (W): 96" typical - 200" max

Sheet Thickness (T): 20"/34" max

Tolerances: Length: + 6", - 0"

Width: + 6", - 0"

Thickness: ± .005" (under 4" thick)

± .062" (over 4" thick)

Density: $\pm 10\%$ Cell Size: $\pm 10\%$

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

Corrosion Resistance:

The anodized PA3 coating offers excellent protection for honeycomb cores exposed to corrosive environments, meeting the requirements of AMS C7438 Rev A, CL1.

PAMG-PA3 5052 aluminum honeycomb is specified as follows:

Trade Name - Corrosion Coating - Density - Cell Size - Foil Gauge - Perforation - Alloy

Nominal density in pounds per cubic foot

Designates aerospace grade aluminum

Nominal foil gauge in ten-thousands inch

Example: PAMG - PA3 - 3.0 - 3/8 - 20 - P - 5052

PA3 anodized coating

Cell size in inches

Cell walls perforated (P); not perforated (N) -

| PAMG-PA3 5052 Mechanical Properties | | | | | | | | | |
|-------------------------------------|-----------------------|--------------------|-----------------------------|-------------|------------------------|-----|-------------|-----|--|
| | | | Bare Compressive - typical* | | Plate Shear - typical* | | | | |
| CELL SIZE | NOMINAL FOIL GAUGE | NOMINAL DENSITY | STRENGTH PSI | MODULUS KSI | STRENGTH PSI | | MODULUS KSI | | |
| inch | inch | PCF | 02 | | "L" | "W" | "L" | "W" | |
| 1/8 | .001 | 4.5 | 520 | 150 | 340 | 220 | 70 | 31 | |
| 1/8 | .0015 | 6.1 | 870 | 240 | 505 | 320 | 98 | 41 | |
| 1/8 | .002 | 8.1 | 1400 | 350 | 725 | 455 | 135 | 54 | |
| 3/16 | .001 | 3.1 | 270 | 75 | 210 | 130 | 45 | 22 | |
| 3/16 | .0015 | 4.4 | 500 | 145 | 330 | 215 | 68 | 30 | |
| 3/16 | .002 | 5.7 | 770 | 220 | 460 | 300 | 90 | 38 | |
| 3/16 | .0025 | 6.9 | 1080 | 285 | 590 | 375 | 114 | 46 | |
| 3/16 | .003 | 8.1 | 1400 | 350 | 725 | 455 | 135 | 54 | |
| 1/4 | .001 | 2.3 | 165 | 45 | 140 | 85 | 32 | 16 | |
| 1/4 | .0015 | 3.4 | 320 | 90 | 235 | 150 | 50 | 24 | |
| 1/4 | .002 | 4.3 | 480 | 140 | 320 | 210 | 66 | 29 | |
| 1/4 | .0025 | 5.2 | 670 | 190 | 410 | 265 | 82 | 35 | |
| 1/4 | .003 | 6.0 | 850 | 235 | 495 | 315 | 96 | 40 | |
| 1/4 | .004 | 7.9 | 1360 | 340 | 700 | 440 | 130 | 52 | |
| 3/8 | .0015 | 2.3 | 165 | 45 | 140 | 85 | 32 | 16 | |
| 3/8 | .002 | 3.0 | 260 | 70 | 200 | 125 | 43 | 21 | |
| 3/8 | .0025 | 3.7 | 370 | 105 | 260 | 170 | 55 | 26 | |
| 3/8 | .003 | 4.2 | 460 | 135 | 310 | 200 | 65 | 29 | |
| 3/8 | .004 | 5.4 | 720 | 200 | 430 | 280 | 86 | 36 | |

Tested at 0.625" per AMS C7438 Rev A at room temperature.





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

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^{*}Minimum values may be up to 25% lower than typical values.