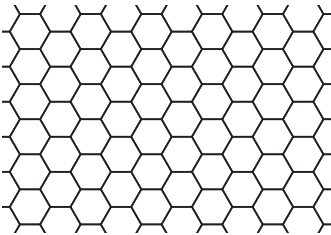
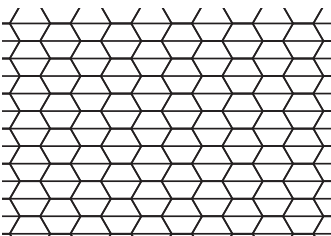


# PAHD-XR1 5052 Corrugated Aluminum Honeycomb

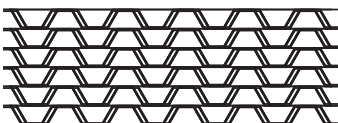
STD



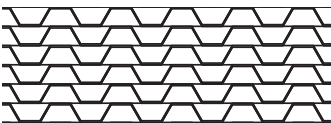
R2



2R2S



R2S



## 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.

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

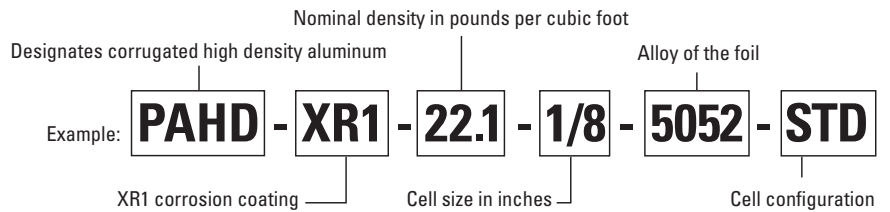
**NOTE:** Special dimensions, sizes, tolerances, and CNC machining can be provided upon request.

## 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 <sup>3</sup>	Kg/m <sup>3</sup>	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	2 S	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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### Corporate Headquarters

**Plascore Incorporated**  
 615 N. Fairview St.  
 Zeeland, MI 49464-0170  
 Phone (616) 772-1220  
 Toll Free (800) 630-9257  
 Fax (616) 772-1289  
 Email sales@plascore.com  
 Web www.plascore.com

### Europe

**Plascore GmbH&CoKG**  
 Feldborn 6  
 D-55444 Waldlaubersheim  
 Germany  
 Phone +49(0) 6707-9143 0  
 Fax +49(0) 6707-9143 40  
 Email sales.europe@plascore.de  
 Web www.plascore.de