

# PCGA-XR2 3000 Series Aluminum Honeycomb

PCGA-XR1 3000 Series Mechanical Properties									
FLASCORE® Honeycomb Description			Bare Compressive				Plate Shear		
Core Type	Cell Size	Density	Strength PSI	Modulus KSI	Strength PSI	Modulus KSI	Strength PSI	Modulus KSI	Modulus KSI
					"L"	"W"	"L"	"W"	"W"
PCGA-XR1	1/8"	5.2	280	142	345	215	33	31	
PCGA-XR1	3/8"	3.8	325	92	210	130	40	20	
PCGA-XR1	1/2"	2.5	195	49	130	80	25	15	
PCGA-XR1	3/4"	1.8	110	24	85	55	18	9	
PCGA-XR1	1"	1.4	75	15	55	40	14		

Based on 6061-T6 aluminum alloy at room temperature.  
 Note: Values are typical values and not guaranteed.

How to specify Plascore Honeycomb:

PCGA-XR1 3000 Series commercial grade aluminum honeycomb is specified as follows:  
 Material - Density - Cell Size - Perforated - Alloy

Example:  
 PCGA-XR1-1.8-3/4-P-3000 Series

Where:

PCGA

XR1

1.8

3/4

P

3000 Series

- designates aluminum commercial grade
- designates XR1 corrosion coating
- is the nominal density in pounds per cubic foot
- is the cell size in inches
- indicates cell walls are perforated
- designates the alloy of the foil

## Description:

PCGA-XR2 3000 Series commercial grade aluminum honeycomb is a lightweight core material offering excellent strength and good corrosion resistance for industrial applications at low cost. PCGA-XR2 3000 Series honeycomb is made from 3000 Series aluminum alloy foil.

## Applications:

PCGA-XR2 3000 Series honeycomb uses include air/light directionalization, energy absorption, tooling, ceiling and floor panels, counter tops and other applications for which elevated physical and mechanical properties are not required.

## Features:

- High thermal conductivity
- Flame resistant
- Good moisture and corrosion resistance
- Fungi resistant
- Low weight / High strength

## Availability:

PCGA-XR2 3000 Series 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.

<b>Cell Sizes:</b>	1/4" - 1.0"
<b>Densities:</b>	1.2 pcf - 5.2 pcf
<b>Sheet "Ribbon" (L):</b>	48" typical - 72" max
<b>Sheet "Transverse" (W):</b>	96" typical - 200" max
<b>Sheet Thickness (T):</b>	35" max
<b>Tolerances:</b>	Length: + 6", - 0"
	Width: + 6", - 0"
	Thickness: ± 0.008" (under 4" thick) ± 0.062" (over 4" thick)
	Density: ± 15%
	Cell Size: ± 15%

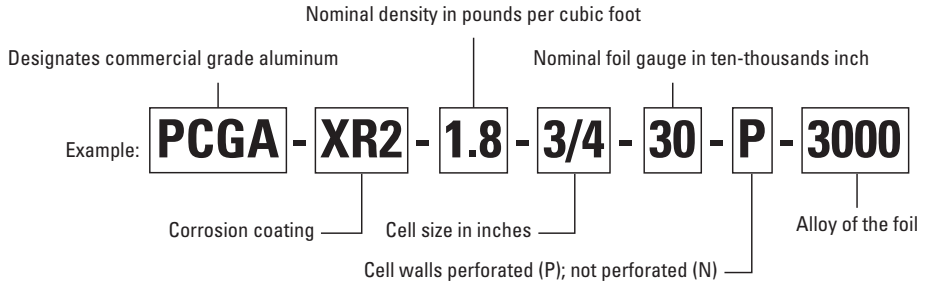
**NOTE:** Special dimensions, sizes, tolerances, CNC machining and die cut to size can be provided upon request.

## Corrosion Resistance:

The XR2 corrosion coating offers a chrome-free clear protective film, providing good corrosion resistance.

# PCGA-XR2 3000 Series commercial grade aluminum honeycomb is specified as follows:

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



## PCGA-XR2 3000 Series Mechanical Properties

CELL SIZE		NOMINAL DENSITY		COMPRESSIVE STRENGTH (BARE)		PLATE SHEAR STRENGTH "L" DIRECTION		PLATE SHEAR MODULUS "L" DIRECTION		PLATE SHEAR STRENGTH "W" DIRECTION		PLATE SHEAR MODULUS "W" DIRECTION	
in	mm	lb/Ft <sup>3</sup>	Kg/m <sup>3</sup>	psi	Mpa	psi	Mpa	ksi	Gpa	psi	Mpa	ksi	Gpa
1/4	6.4	5.2	83	680	4.69	330	2.28	67	0.46	195	1.34	37	0.26
3/8	9.6	3.6	58	340	2.34	227	1.56	55	0.38	135	0.93	25	0.17
1/2	12.7	2.5	40	205	1.41	140	0.97	38	0.26	77	0.53	15	0.10
3/4	19.0	1.8	29	125	0.86	105	0.72	23	0.16	61	0.42	13	0.09
1.0	24.4	1.2	19	85	0.59	70	0.48	14	0.10	50	0.34	7	0.05

Note: Additional densities and configurations available upon request.

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

Certificates of conformance are not provided. Values stated are for reference only.



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