

# PAA-SFH<sup>®</sup>

## Phosphoric Acid Anodized Aluminum Honeycomb

### Description

PAA-SFH is an aerospace grade 5052 aluminum honeycomb materials produced from phosphoric acid anodized aluminum sheets. Phosphoric acid anodize gives an excellent corrosion resistance to aluminum alloy, and the surface treatment system with a corrosion prohibited primer provide the greatest bondability and fatigue strength under critical conditions such as hot & wet condition. PAA-SFH is available in three selections of core density and foil thickness.

### Features

- Aerospace structural grade honeycomb
- Superior corrosion protection compared to standard aluminum honeycomb
- Enhanced bondability and fatigue strength
- Highest strength and rigidity to weight for sandwich construction
- Available in 5052 aluminum alloys

### Applications

PAA-SFH has been developed to enhance the properties of standard aluminum honeycomb against the corrosion. The enhanced corrosion protection of PAA-SFH can provide a potential to reduce a life cycle cost or/and to reduce manufacturing cost occurred for additional processes to improve corrosion protection and durability of the standard aluminum honeycomb. For this reason, PAA-SFH will be an alternative for the standard aluminum honeycomb being used for the bonded assemblies of aircrafts.

### Type Designation

PAA-SFH is designated as follows:

Material – Alloy – density – Foil Thickness

Example: PAA-SFH 4.1-5052-25

Where:

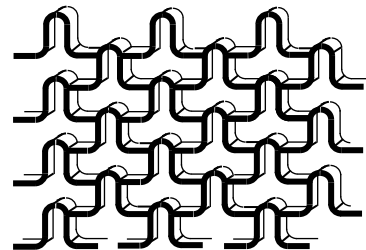
PAA-SFH:PAA aluminum flexible honeycomb

5052 : 5052 aluminum alloy

25: Foil thickness in ten thousandths of an inch

4.1:nominal core density in pound per cubic foot

### Structural Appearance



### Standard Dimensions

Alloy	L Direction	W Direction	T Minimum
5052	36" +4/-0"	96" +8/-0"	0.200"

Tolerances on cut thickness are as follows:

±0.005" for 0.120" to 4.000" Thickness

±0.062" for 4.001" and over

Note: T maximum and T minimum to be confirmed with Showa Sales Office.

### Standard Specifications

**Density:** Refer to Mechanical Properties

**Mechanical Properties (Typical Data)**

Designation	Density (pcf)	Compressive Strength (psi)	Plate Shear			
			Strength (psi)		Modulus (psi)	
			L Direction	W Direction	L Direction	W Direction
<b>3.1-5052-19</b>	3.1	360	150	80	35000	14500
<b>4.1-5052-25</b>	4.1	535	240	140	45000	18500
<b>5.7-5052-37</b>	5.7	858	430	260	75000	30000

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***CONTACT for MORE INFORMATION***

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