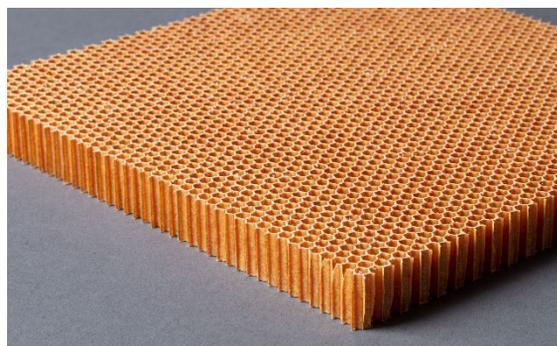


SAH[®] (SHOWA ARAMID HONEYCOMB)

Description

SAH[®] is produced with Nomex[®] aramid fiber sheets. These sheets are bonded by a thermosetting adhesive at the nodes. After expanded to the hexagonal cell or over-expanded cell configuration, it is dipped in a heat resistant phenolic resin and cured in an oven. SAH is available at the required core thickness since the cutting to thickness is done according to customer's request.



Features

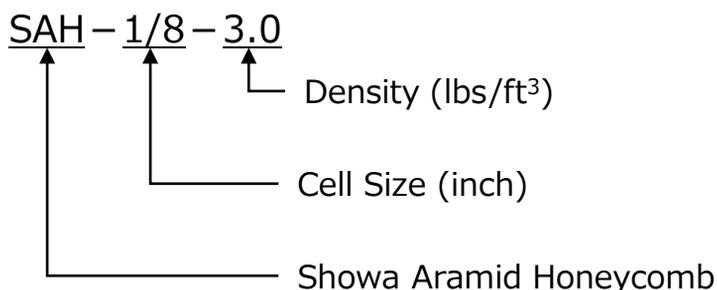
- Small cell size at low densities
- Damage resistant under normal shop use
- Fire resistant (self-extinguishing)
- Water resistant
- Excellent dielectric properties
- Good thermal and electrical insulator

Applications

- Sports and leisure goods
- Racing car components
- Train car panels

Designation

Example



Standard Dimensions

Cell Shape	L direction	W direction	T direction
Hexagonal Cell	48 ±2 inch (1200 ±50 mm)	96 ±6 inch (2400 ±150 mm)	0.12 ~ 32.0 inch (3.00 ~ 812 mm)
OX Cell	38 ±2 inch (960 ±50 mm)	96 ±6 inch (2400 ±150 mm)	0.12 ~ 20.0 inch (3.00 ~ 500 mm)

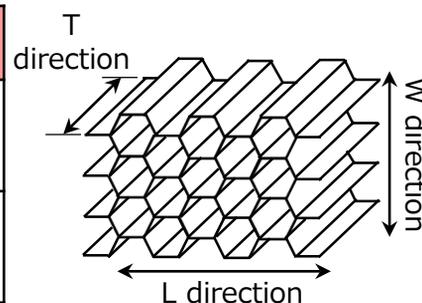
<T direction Tolerance>

0.12~2.00 inch (3.00~50.00 mm) : ±0.006 inch (±0.15 mm)

2.01~4.00 inch (50.01~100.00 mm) : ±0.01 inch (±0.25 mm)

4.01 inch (101.854mm) 以上 : ±0.12 inch (±3.00 mm)

Dimensional Nomenclature



NOTE: For more information, please contact our Sales Office

Mechanical Properties

Designation	Compressive		Plate Shear			
	Bare	Stabilized	L Direction		W Direction	
	Strength (psi)		Strength (psi)	Mod. (ksi)	Strength (psi)	Mod. (ksi)
SAH-1/8-1.8	110	130	90	3.7	50	2.0
SAH-1/8-3.0	300	330	180	7.0	95	3.5
SAH-1/8-4.0	500	560	245	9.1	140	4.7
SAH-1/8-5.0	755	860	325	12.0	175	5.5
SAH-1/8-8.0	1565	1700	490	16.0	250	7.8
SAH-1/8-9.0	1700	1800	500	17.0	270	9.0
SAH-3/16-3.0	300	330	150	5.0	95	3.5
SAH-1/4-1.5	90	95	75	3.0	35	1.5
SAH-3/16 OX-1.8	105	105	60	1.2	60	1.8
SAH-3/16 OX-3.0	365	400	115	3.0	125	6.0
SAH-1/4 OX-3.0	350	370	100	1.8	100	3.6

NOTE:

- Bare Compression is a compression test of honeycomb core.
- Stabilized Compression is a compression test of a honeycomb panel.
- The above data are the properties when tested per SAE-AMS-STD-401 at room temperature using 0.500 inch core thickness.
- The typical values represent the mean average of relatively large number of test values from many blocks of honeycomb, and are not guaranteed.
- Tolerance of the density is $\pm 10\%$ of nominal density.
- "OX" is an over-expanded hexagonal cell in the W direction, providing a rectangular cell shapes that facilitates curving or form in the L direction.

SAH® is Registered Trademark of Showa Aircraft Industry.
 Nomex® is Registered Trademark of DuPont.

SHOWA AIRCRAFT INDUSTRY CO., LTD.

Tokyo Sales Office
 600 Tanaka-cho, Akishima-shi, Tokyo 196-8522, Japan
 Phone: +81-42-541-8883
 Fax: +81-42-545-6909
 e-mail: honeycombsales196@showa-aircraft.co.jp
 HP: <https://www.showa-aircraft.co.jp/en/index.html>

SHOWA AIRCRAFT USA INC.

14711 NE 29th PI Suite 118 - Bellevue,
 WA 98007, USA
 Phone: +1-425-202-7238
 HP: <https://showaaircraftusa.com/>