



# HexWeb® HRH-310

Aramid Fiber/Polyimide Resin Honeycomb

*Product Data*

## Description

HexWeb® HRH-310 is manufactured from aramid fiber sheets. A thermosetting adhesive is used to bond these sheets at the nodes, and after expanding to the hexagonal configuration, the block is dipped in polyimide resin. After curing the resin, slices are cut to the desired thickness. Using this process, a wide range of cell sizes, paper thicknesses, and densities can be produced. An OX-Core® configuration featuring enhanced formability is available upon special request.

## Features

- Outstanding dielectric and loss tangent properties
- Small cell sizes at low densities
- Relatively damage resistant
- Formability
- Good bonding surfaces
- Good thermal and electrical insulator

## Applications

Outstanding results have been reported with the use of HexWeb® HRH-310 in a sandwich structure as both a strip antenna and a radome. Although a polyimide resin is used, HexWeb® HRH-310 is not recommended for high-temperature applications. The polyimide resin is used for electrical reasons only.

## Standard Dimensions

HexWeb® 310 polyimide honeycomb materials are available in the following standard dimensions:

Product	L	W	T Max	T Min
HRH® 310 Materials	36 in + 2 in – 0 in	60 in + 2 in – 0 in	12 in	0.06 in

Other L and W dimensions and densities are available on special request. Please contact the nearest Hexcel Sales Office for additional information.

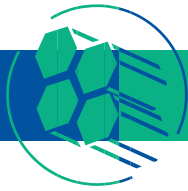
## Thickness Tolerance

Tolerances on cut thickness are as follows:

0.060 in to 2.000 in tolerance will be  $\pm 0.006$  in

2.001 in to 4.000 in tolerance will be  $\pm 0.010$  in

4.001 in and over tolerance will be  $\pm 0.063$  in



## Type Designation

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HexWeb® HRH-310 honeycomb is designated as follows:

Material – Cell Size – Density

Example: HRH-310 – 1/8 – 1.8

Where:

**HRH-310** – designates honeycomb type

**1/8** – is the cell size in inches

**1.8** – is the nominal density in pounds per cubic foot

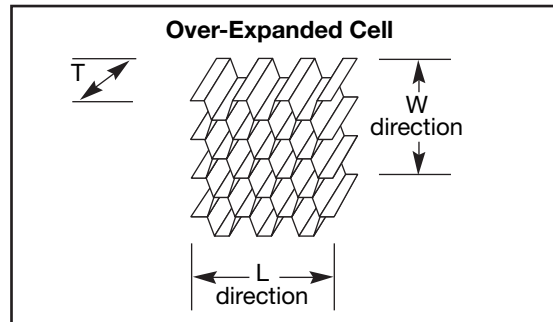
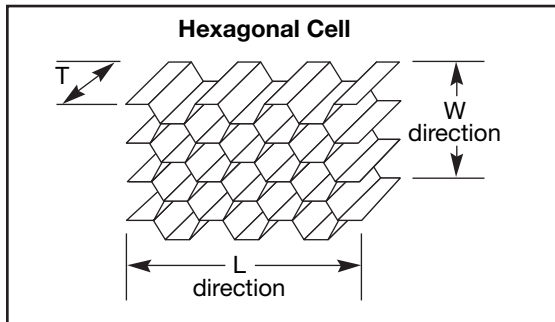
## Dimensional Nomenclature

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**T** = Thickness, or cell depth

**L** = Ribbon direction

**W** = Long direction, or direction perpendicular to the ribbon



## Availability

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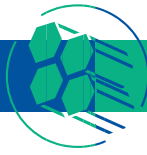
HexWeb® HRH-310 polyimide honeycomb will be supplied F.O.B. Casa Grande, Arizona. Contact the nearest Hexcel Sales Office for delivery information.

**Mechanical Properties of HexWeb® HRH-310 at Room Temperature**

Test data obtained at 0.500 inch thickness per MIL-STD-401B.

Designation	Compression		Plate Shear							
			L Direction				W Direction			
	Bare		Strength, psi		Modulus, ksi		Strength, psi		Modulus, ksi	
HRH-310-1/8-1.8	<i>Minimum Average</i>	<i>Minimum Individual</i>	<i>Minimum Average</i>	<i>Minimum Individual</i>	<i>Minimum Average</i>	<i>Minimum Individual</i>	<i>Minimum Average</i>	<i>Minimum Individual</i>	<i>Minimum Average</i>	<i>Minimum Individual</i>
	55	52	52	50	3.3	3.0	25	23	1.1	1.0

Additional cell sizes and densities are available upon request.



## **Important**

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## **For more information**

Hexcel is a leading worldwide supplier of composite materials to aerospace and other demanding industries. Our comprehensive product range includes:

- Carbon Fiber
- RTM Materials
- Honeycomb Cores
- Continuous Fiber Reinforced Thermoplastics
- Carbon, Glass, Aramid and Hybrid Prepregs
- Structural Film Adhesives
- Honeycomb Sandwich Panels
- Special Process Honeycombs
- Reinforced Fabrics

For US quotes, orders and product information call toll-free 1-800-688-7734. For other worldwide sales office telephone numbers and a full address list please click here: <http://www.hexcel.com/contact/salesoffices>.