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.

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 Min
HexWeb® HRH 310 Materials	36 in +/- 2 in	60 in +/- 2 in	0.06 in

Other L and W dimensions and densities may be available upon 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 ± 0.006 in

2.001 in to 3.000 in tolerance will be ± 0.010 in

3.001 in and over tolerance will be 6 ± 0.062 in

Type Designation

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

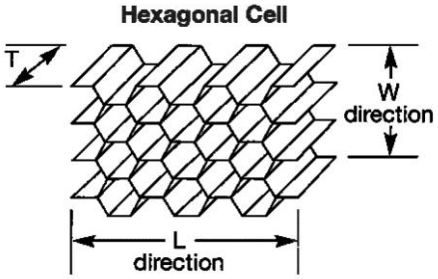
1.8 – is the nominal density in pounds per cubic foot

Dimensional Nomenclature

T = Thickness, or cell depth

L = Ribbon direction, or width

W = Long direction, or direction perpendicular to the ribbon



Images for explanation only and do not represent actual appearance.

Availability

HexWeb® HRH-310 polyimide honeycomb is supplied as follows:

SHIPPING TERMS: FCA Hexcel, Casa Grande, AZ, USA (Incoterms 2010)

MATERIAL TITLE TRANSFER: Hexcel, Casa Grande, AZ, USA

Lead times will vary with the particular core type selected.

The information in this Data Sheet is subject to change without notice.

Contact your nearest Hexcel Sales Office for delivery information.

Mechanical Properties of HexWeb® HRH-310 at Room Temperature Typical Values Represented Below

Test data obtained at 0.500 inch thickness per AMS-STD-401

Hexcel Honeycomb Designation	Compressive		Plate Shear							
	Bare		L Direction				W Direction			
Material-Cell-Size-Density	Strength psi		Strength psi		Modulus ksi		Strength psi		Modulus ksi	
	Min Ave	Min Ind	Min Ave	Min Ind	Min Ave	Min Ind	Min Ave	Min Ind	Min Ave	Min Ind
HRH-310-1/8-1.8	55	52	52	50	3.3	3.0	25	23	1.1	1.0

Important

Hexcel Corporation believes, in good faith, that the technical data and other information provided herein is materially accurate as of the date this document is prepared. Hexcel reserves the right to modify such information at any time. The performance values in this data sheet are considered representative but do not and should not constitute specification minima. The only obligations of Hexcel, including warranties, if any, will be set forth in a contract signed by Hexcel or in Hexcel's then current standard Terms and Conditions of Sale as set forth on the back of Hexcel's Order Acknowledgement.

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
- Reinforced Fabrics
- Carbon, Glass, Aramid and Hybrid Prepregs
- RTM Materials
- Engineered Core
- HexTOOL® composite tooling material
- Structural Film Adhesives
- Honeycomb Cores

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.