



HexWeb® HRH-327

Fiberglass Reinforced Polyimide Honeycomb

Product Data

Description

HexWeb® HRH-327 is a glass-fabric, bias weave reinforced plastic honeycomb that incorporates a polyimide resin system for the node adhesive as well as both the initial and final web impregnations. This material has been developed for extended service temperatures up to 500°F with short-term capabilities up to 700°F. Unless otherwise specified, material will have standard postcure.

Features

- High-strength retention up to 500°F continuous service
- 700°F short and intermittent term exposures
- All polyimide resin and adhesive system
- Good dielectric properties
- Good insulative properties
- Compatible with Hexcel polyimide adhesive, foam, and prepreg

Applications

A high-temperature nonmetallic honeycomb for use in sandwich structures that require good electrical properties or that see service temperatures in the range of 350°F-500°F. Applications include sandwich structures for Mach 2 and Mach 3 aircraft, high-energy radomes, structural and acoustical engine inlets and liners.

Standard Dimensions

HexWeb® HRH-327 polyimide honeycomb materials are available in the following standard dimensions:

Product – Cell	L	W	T Min
HRH-327 – 1/8 in	30 in ± 1 in	60 in ± 3 in	0.125
HRH-327 – 3/16 in	30 in ± 1 in	72 in ± 3 in	0.125
HRH-327 – 3/8 in	30 in ± 1 in	72 in ± 3 in	0.125

Other L, W, and T dimensions and densities are available on special request. Please contact the nearest Hexcel Sales Office for additional information. One block minimum buy may apply.

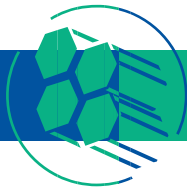
Thickness Tolerance

Tolerances on cut thickness will be as follows:

0.125 in to 1.500 in tolerance will be ± 0.006 in

1.501 in to 3.000 in tolerance will be ± 0.010 in

3.001 in and over tolerance will be ± 0.062 in



Type Designation

HexWeb® HRH-327 honeycomb is designated as follows:

Material – Cell Size – Density

Example: HRH-327 – 3/16 – 4.5

Where:

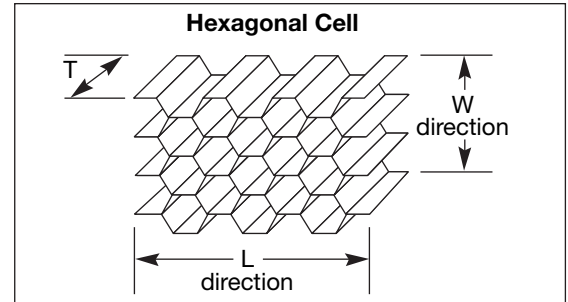
- HRH-327** – designates honeycomb type
- 3/16** – is the cell size in inches
- 4.5** – is the nominal density in pounds per cubic foot

Dimensional Nomenclature

T = Thickness, or cell depth

L = Ribbon direction

W = Transverse direction, or direction perpendicular to the ribbon



Availability

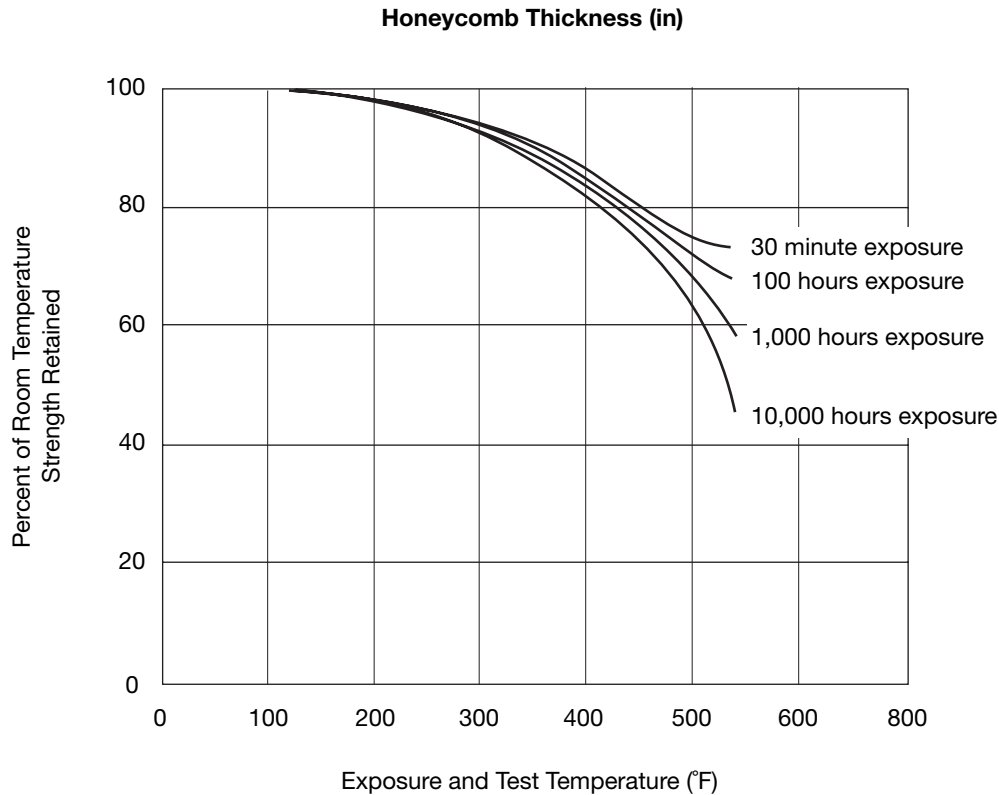
HexWeb® HRH-327 polyimide honeycomb will be supplied F.O.B. Casa Grande, Arizona. Contact your nearest Hexcel Sales Office for delivery information.

Mechanical Properties

Hexcel Honeycomb Designation Material – Cell – Density	Compressive			Plate Shear					
	Stabilized			L Direction			W Direction		
	Strength psi		Modulus ksi	Strength psi		Modulus ksi	Strength psi		Modulus ksi
	typ	min	typ	typ	min	typ	typ	min	typ
HRH-327 – 1/8 – 3.2	310	220	27	195	140	19	95	70	7.5
HRH-327 – 1/8 – 5.5	790p	600p	80p	465p	300p	30p	245p	175p	14.5p
HRH-327 – 3/16 – 4.0	440p	340p	40p	280p	200p	24p	130p	90p	10.0p
HRH-327 – 3/16 – 4.5	520	400	58	320	220	33	150	110	11.0
HRH-327 – 3/16 – 5.0	600p	480p	68p	370p	280p	37p	180p	135p	12.0p
HRH-327 – 3/16 – 6.0	780	625	87	460	345	45	230	170	15.0
HRH-327 – 3/16 – 8.0	1210	1000	126	700	490	55	420	300	22.0
HRH-327 – 3/8 – 4.0	440	325	50	280	195	29	150	100	12.0
HRH-327 – 3/8 – 5.5	680	540	78	420	300	41	210	160	13.0
HRH-327 – 3/8 – 7.0	1000p	875p	106p	575p	480p	53p	340p	280p	18.0p

p = preliminary values. Test data obtained at 0.500 inch thickness.
 Honeycomb normally is not tested for bare compressive strength.
 Tolerance for nominal densities shown above is ± 10%.
 HexWeb® HRH-327 – 1/4 inch cell size is available upon special request, if quantity is sufficient.

Post-Cured HexWeb® HRH-327 Strength Retention at Elevated Temperatures





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
- 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>.