

## HexWeb® HRH-36

### Para-Aramid/Phenolic Core

## Product Data

### Description

HexWeb® HRH-36 is manufactured using Kevlar® paper. The standard resin system is phenolic. Alternate resin systems may be available upon request.

### Features

- Low Moisture Pickup
- Excellent Thermal Stability
- Smooth Cell Wall Finish

### Applications

HexWeb® HRH-36 is a high performance non-metallic core, available in a wide range of densities, suitable for most composite sandwich applications. It can be readily heat formed to help produce complex components and offers a weight reduction over higher density Nomex® honeycomb cores.

### Standard Dimensions

HexWeb® HRH-36 is currently made in panel sizes  $1250 \pm 50 \times 2500 \pm 100$ mm for thicknesses up to 860mm.

Flex-Core® and overexpanded cell configurations may be available upon request. For requirements involving other size panels, pieces cut-to-size, or formed parts, contact the nearest Hexcel Sales Office.

### Thickness Tolerance

Tolerances on cut thickness are as follows:

3 to 50mm tolerance will be  $\pm 0.125$ mm

50 to 100mm tolerance will be  $\pm 0.25$ mm

100mm and over tolerance will be  $\pm 3$ mm

### Type Designation

HexWeb® HRH-36 honeycomb is designated as follows:

Material – Cell Size – Density

#### European Sourced Material

Example:- **HRH-36 – 3.2 – 48**

Where:

**HRH-36** - designates honeycomb type  
**3.2** - is the cell size in mm  
**48** - is the nominal density in kg per cubic metre

#### U.S. Sourced Material

Example:- **HRH-36 – 1/8 – 3.0**

Where:

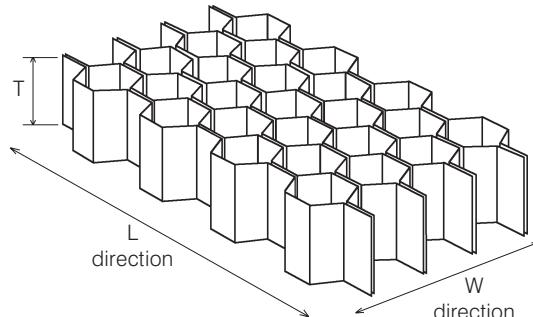
**HRH-36** - designates honeycomb type  
**1/8** - is the cell size in inches  
**3.0** - is the nominal density in pounds per cubic foot

### Dimensional Nomenclature

**T** = Thickness or cell depth

**L** = Ribbon direction or width

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



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## Availability

HexWeb® HRH-36 will be shipped from Duxford, UK or Casa Grande, Arizona, USA. Lead times will vary due to core type. Contact the nearest Hexcel Sales Office for delivery information.

## Mechanical Properties

The following mechanical properties are based on preliminary testing of these products at 12.7mm thickness. Tests were per MIL-STD-401.

Hexcel Honeycomb Designation	Compression		Plate Shear			
	Bare	Stabilized	L Direction		W Direction	
Material-Cell-Density	Strength Mpa	Strength Mpa	Strength Mpa	Modulus Mpa	Strength Mpa	Modulus Mpa
HRH-36-3.2-40	1.55	1.7	1.25	97	0.7	41
HRH-36-3.2-48	2.33	2.4	1.45	100	0.86	50
HRH-36-3.2-64	4.2	4.35	2.1	125	1.1	60
HRH-36-3.2-96	6.76	6.9	3.25	200	1.8	90
HRH-36-4.0-72	4.35	4.8	2.2	125	1.4	65
HRH-36-4.8-28	0.9	1	0.78	63	0.43	28
HRH-36-4.8-32	0.97	1.1	0.83	69	0.48	30
HRH-36-4.8-37	1.3	1.4	1	75	0.55	32
HRH-36-4.8-48	2.3	2.45	1.57	127	0.75	45

These are estimated minimum average values based on limited test data.

## Important

All information is believed to be accurate but is given without acceptance of liability. Users should make their own assessment of the suitability of any product for the purposes required. All sales are made subject to our standard terms of sale which include limitations on liability and other important terms.

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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 Fibre
- RTM Materials
- Honeycomb Cores
- Carbon, glass, aramid and hybrid prepregs
- HexTOOL® composite tooling material
- Structural Film Adhesives
- Honeycomb Sandwich Panels
- Engineered Core
- Reinforcement 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 go to:**

<http://www.hexcel.com/contact/salesoffices>