

## Ultracor® UCF-51-3/8-2.0 Honeycomb Core Material

Category : Other Engineering Material , Composite Core Material

**Material Notes:**

Construction:  $\pm 45^\circ$  XN50. Fiber: Carbon XN50. Ultracor® is a very low density honeycomb core material designed for use in highly weight-sensitive structures. It is expected that it will be used in spacecraft Antenna Reflectors, Optical Benches, Solar Arrays, and other lightly loaded structures which must be positioned with accuracy and stability in order to properly perform their intended purpose. It was developed using a space qualified, toughened, polycyanate matrix resin. General Ultracor® features include low density, design flexibility, low CTE, low CME, and high thermal conductivity. Data provided by Ultracor Inc., formerly YLA Cellular Products Company.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Ultracor-UCF-51-38-20-Honeycomb-Core-Material.php](http://www.lookpolymers.com/polymer_Ultracor-UCF-51-38-20-Honeycomb-Core-Material.php)

Physical Properties	Metric	English	Comments
Density	0.0320 g/cc	0.00116 lb/in <sup>3</sup>	core density

Mechanical Properties	Metric	English	Comments
Compressive Yield Strength	1.41 MPa	205 psi	
Shear Modulus	0.331 GPa	48.0 ksi	ribbon direction
Shear Strength	1.14 MPa	165 psi	ribbon direction

Thermal Properties	Metric	English	Comments
CTE, linear	4.50 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	2.50 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	across thickness
	@Temperature 20.0 $^\circ\text{C}$	@Temperature 68.0 $^\circ\text{F}$	
Thermal Conductivity	1.60 W/m-K	11.1 BTU-in/hr-ft <sup>2</sup> - $^\circ\text{F}$	transverse to ribbon
	2.20 W/m-K	15.3 BTU-in/hr-ft <sup>2</sup> - $^\circ\text{F}$	ribbon direction
	6.00 W/m-K	41.6 BTU-in/hr-ft <sup>2</sup> - $^\circ\text{F}$	across thickness

## Contact Songhan Plastic Technology Co.,Ltd.

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