

# Product Data Sheet: Composite Panels HC8



Carbon-Core Composite Panels comes with a 8mm cell size core. The honeycomb core has an 18oz layer of resin mixed with fiberglass on each side and all of the panels have a white glossy look to them, although sanded panels are available.

These panels have a standard size of 48"x96" and come in all of the thicknesses listed on page 2. Special orders for larger or thicker panels are available through contact info listed at the bottom of this page and on our website <http://www.carbon-core.com/contact.htm>.

## CHARACTERISTICS

- ◆ Non-Flammable
- ◆ Great impact strength
- ◆ Great strength/stiffness to weight ratio
- ◆ High insulation properties (sound and thermal)
- High heat distortion temperature
- Rot free

## INDUSTRIES

- ◆ **Marine:** Superstructures, decks, hulls, bulkheads
- ◆ **Industrial:** Tanks, covers, portable shelters, container
- ◆ **Wind Power:** Nacelles, rotor blades
- ◆ **Recreational:** Kayaks, canoes, snowboards, skis, surf/wakeboards
- ◆ **Road:** Floors, doors, side skirts, roof panels, partition walls

## PROCESSING

- ◆ Adhesive bonding
- ◆ Compression Molding
- ◆ Thermoforming
- ◆ Contact molding
- ◆ Vacuum Infusion
- ◆

All tests carried out by independent laboratory. This information is provided in good faith and is subject to modifications without prior notification. It does not constitute a commitment, neither a contractual document. Carbon-Core Corp will not assume any liability from use or misuse of data presented herein. Assessment of suitability is the responsibility of end user only.

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**Tel: 434-510 7115    [info@carbon-core.com](mailto:info@carbon-core.com)**

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Material	CarbonCore 6mm + 18oz FG (both sides)	CarbonCore 10mm + 18oz FG (both sides)	CarbonCore 13mm + 18oz FG (both sides)	CarbonCore 20mm + 18oz FG (both sides)	CarbonCore 25mm + 18oz FG (both sides)
<b>Total thickness of sandwich</b>	0.291" 7.4 mm	0.448" 11.4mm	0.568" 14.4mm	0.808" 20.5mm	1.058" 26.9mm
<b>Modulus (MSI)</b>	1.95 0 1.95	1.95 0 1.95	2.25 0 2.0	2.25 0 2.0	2.25 0 2.0
<b>Max Ply Stress (psi)</b>	42000 0 42000	42000 0 42000	26300 0 26142	26300 0 26189	26300 20727 26215
<b>% of Each Ply's Ultimate Strength</b>	100 0 100	100 0 100	100 0 88.27	100 0 88.18	100 0 88.27
<b>Bending Stiffness</b>	2381 lb/in <sup>2</sup>	4972 lb/in <sup>2</sup>	8929 lb/in <sup>2</sup>	18642 lb/in <sup>2</sup>	32521 lb/in <sup>2</sup>
<b>Flatwise Compression Fmax/Area</b>	188 psi	188psi	188psi	188psi	188psi

### Deflection Values

Core Thickness	Span	Span	Span
	24"	36"	48"
<b>10mm</b>	0.12"	0.27"	0.48"
<b>13mm</b>	0.067"	0.15"	0.27"
<b>20mm</b>	0.032"	0.072"	0.13"
<b>25mm</b>	0.018"	0.04"	0.073"
<b>38mm</b>	0.008"	0.018"	0.033"
<b>50mm</b>	0.005"	0.011"	0.019"

### Approximate Weights per sq. ft. and per 48X96 Panel

Panel	5mm	7mm	10mm	13mm	16mm	20mm	25mm	30mm	38mm	50mm	76mm
<b>HC 8 18oz FG</b>	.65psf 20.8 lb	.68psf 21.8 lb	.73psf 23.4 lb	.78psf 25 lb	.83psf 26.6 lb	.90psf 28.7 lb	1.0psf 32.2 lb	1.06psf 33.9 lb	1.19psf 38.2 lb	1.39psf 44.5 lb	1.82psf 58.2 lb

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