

# DARKAERO

## PRODUCT DATA - CARBON FIBER AND ALUMINUM HONEYCOMB PANEL

### PART NUMBER S1-F1-M1-C1-B1

Panel Areal Weight	120 g/ft <sup>2</sup> +/- 5 g/ft <sup>2</sup>
Total Thickness	0.272" +/- 0.007"
Flatness	+/- 0.007"
Temperature Capability	300°F

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### SKIN

Total Thickness	0.011" +/- 0.002"
Material	Aerospace Grade T700 12K Carbon Fiber Plain Weave 0.009" Thick Aerospace Grade E-Glass Fiberglass Plain Weave 0.002" Thick*
Resin Content	37% by weight
Surface Finish	Ra 9 µin
Skin Bond to Core Fillet Radius	0.015"

\*A thin layer of fiberglass is incorporated in the panel construction to electrically isolate the aluminum core from the carbon fiber skin and prevent galvanic corrosion.

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### MATRIX

Material	Thermoset Epoxy
Tg	>300°F
Tensile Strength	12,600 psi
Compressive Strength	16,700 psi
Flexural Strength	16,100 psi
Tensile Elongation	4.1%
Flexural Elongation	6.3%
Hardness	90 Shore D
Density	0.041 lbs/in <sup>3</sup>

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### CORE

Material	Aerospace Grade 5056 Aluminum
Thickness	0.250" +/- 0.005"
Cell Size	0.125" +/- 0.013"
Cell Wall Thickness	0.0007"
Density	3.1 +/- 0.3 lbs/ft <sup>3</sup>
Bare Compressive Strength	340 psi
Compressive Modulus	97,000 psi
L- Shear Strength	250 psi
L- Shear Modulus	45,000 psi
W- Shear Strength	155 psi
W- Shear Modulus	20,000 psi

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## PLEASE CONTACT US FOR FURTHER INFORMATION

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