

DARKAERO

PRODUCT DATA - CARBON FIBER AND ALUMINUM HONEYCOMB PANEL

PART NUMBER S1-F1-M1-C1-B1

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

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.

MATRIX

Material	Thermoset Epoxy
Tg	312°F
Tensile Strength	12,600 psi
Compressive Strength	16,700 psi
Flexural Strength	14,500 psi
Tensile Elongation	4.1%
Flexural Elongation	5.0%
Hardness	87 Shore D
Density	0.040 lbs/in ³

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 ³
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

PLEASE CONTACT US FOR FURTHER INFORMATION

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