

FCP-RI Foam Cored Carbon Fibre Panel



### **Key Features**

- Foam Cored panel for light weight and stiffness
- Balanced laminate both sides of the core
- High Gloss finish on top, satin on back

# Description

Premium quality foam cored carbon fibre panel manufactured using 100% high-strength carbon fibre reinforcement sandwiched either side of a low density structural core material. These panels have a smooth, glossy, cosmetic quality carbon fibre finish on one side and a smooth, satin finished carbon fibre finish on the reverse.

Utilising a foam core allows for a panel of maximum stiffness for the minimum possible weight. Conventional 'solid' carbon fibre sheets, made without a core material, are significantly heavier for the same deflection strength.

#### **Typical Uses**

- Lightweight Structural/Engineering Projects
- Vehicle/ Marine Panelling and Undertrays
- Universal Carbon Fibre Splitters
- Exhibition Systems / Displays
- Architectural Use

# **Specification**

#### Available Sizes and Thickness

The panel is 6mm or 11mm in thickness, in the following sizes: 2000x980mm, 1000x980mm, 980x500mm and 500x480mm.

#### Layup Schedule

To create a more uniform distribution of strength, these panels are manufactured using a symmetrical layup each side of the foam core. This helps prevent warping and gives a flatter finished panel. The Layup Schedule of the Panels are as follows:

200gsm 3k 2x2 Twill Carbon Fibre 290gsm Plain Weave Woven Glass Fibre 5mm or 10mm EasyCell 75 PVC Foam Core 290gsm Plain Weave Woven Glass Fibre 200gsm 3k 2x2 Twill Carbon Fibre

#### **Mechanical Properties**

The Following was measured from our 6mm thick panel.

Property	Unit	Value
Weight	kg/m²	2.71
Tensile Strength 0/90°	MPa	71.4
Tensile Strength 45°	MPa	36.7
Tensile Modulus 0/90°	GPa	66.1
Tensile Modulus 45°	GPa	20.6
Youngs Modulus 0/90°	GPa	9.52
Compressive Strength	MPa	1.33
Compressive Modulus	GPa	72.5
Core Shear Strength	MPa	1.09
Core Shear Modulus	MPa	27.75
Elongation at Break 0/90°	%	2.64
Elongation at Break 45°	%	2.42
Maximum Service Temperature	°C	70
Core Thermal Conductivity at Room Temp	W/mK	0.033
Maximum Water Absorption	g/m²	37.5

### Disclaimer

This data is not to be used for specifications. Values listed are for typical properties and should not be considered minimum or maximum. Our technical advice, whether verbal or in writing, is given in good faith but Easy Composites Ltd gives no warranty; express or implied, and all products are sold upon condition that purchasers will make their own tests to determine the quality and suitability of the product for their particular application and circumstances.

Easy Composites Ltd shall be in no way responsible for the proper use and service of the product, nor for the safeguarding of personnel or property, all of which is the duty of the user. Any information or suggestions are without warranty of any kind and purchasers are solely responsible for any loss arising from the use of such information or suggestions. No information or suggestions given by us shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Before using any of our products, users should familiarise themselves with the relevant technical and safety datasheets provided by Easy Composites Ltd.

#### Leaders in materials, equipment and training for advanced composites

Easy Composites Ltd Unit 39, Park Hall Business Village Stoke-on-Trent, ST3 5XA United Kingdom Easy Composites Ltd Beneluxbaan 16 Rijen, 5121 DC Netherlands

www.easycomposites.com

sales@easycomposites.com

T: +44 (0) 1782 454499

Version 2.0 Revised 23/06/2025

Page 1 of 1