



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.

Typical Uses

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

Advantages

The foam core allows us to make a panel of satisfactory thickness to be very stiff for the minimum possible weight. Conventional panels (made without a core material) are significantly heavier for the same deflection strength.

Specification

Balanced Layup

To create a more uniform distribution of strength, all our foam cored panels are manufactured using a balanced laminate layup each side of the foam core. This helps prevent warping and gives a flatter finished panel.

Available Sizes and Thickness

The panel is 6mm or 11mm in thickness, in the following sizes: 1980x980mm, 980x980mm, 980x480mm and 480x480mm.

Layup Schedule

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/m ² | 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/m ² | 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.

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