



Divinycell F - for new innovative interior aircraft applications

An ideal solution for Canadian manufacturer FDC Composites, Divinycell F fulfills all regulations for interior applications of commercial airlines.

Specialized in the manufacturing of composite parts

Based in Montreal, Canada, FDC Composites Inc. specializes in manufacturing and design of composite parts and assemblies. Primarily focusing on the aerospace sector, FDC Composites also offers its expertise to industries with high technical requirements, such as the rail industry. The company works with all types of fibres and resins, and uses different manufacturing techniques, from Pre-Preg, Vacuum Assisted Resin Infusion (VARTM) and Vacuum Bag Moulding, to 3D printing, light RTM, Hand Lay-up and it will field its first aerospace grade autoclave in the coming months.

Divinycell F50 cores for interior aircraft parts

Teaming up with Diab, FDC Composites recently utilized *Divinycell F50* cores to certify new side wall panels and numerous other interior aircraft parts, in many types of commercial and business aircraft, from many major OEMs. The *F50* was brought to FDC for evaluation by Diab's Canadian distributor BMB and it was selected because it passes the interior application certification regulations for commercial airlines. A foamed PESU sandwich core, *Divinycell F* resists high temperature and exceeds all requirements for fire, smoke and toxicity (FST) and heat release requirements. In addition to aircraft interior panels and parts, FDC Composites also uses sandwich composites for train parts in rail cars and flight simulators.

Divinycell F – the solution to aircraft interiors

Apart from the safety aspect, *Divinycell F* offers characteristics that benefit the design and manufacturing of aircraft interiors. With densities from 40 to 90 g/l (2.5 to 5.6 lbs/ft³), *Divinycell F* is flexible enough to realize any design ideas, including curved and innovative shapes, without compromising strength. Compared to Nomex honeycombs, the material saves up to 20% weight. It requires fewer steps to achieve a high quality surface finish and its closed cells and minimum water absorption eliminates the need for edge filling. All these characteristics result in substantial time and cost savings for the manufacturer. In addition, it features improved acoustical and thermal insulation properties compared to honeycomb. *Divinycell F* can be formed at hot or cold temperatures, can easily be cut, and is also available in the form of precut kits.

Approved by Airbus

Divinycell F is becoming well recognized and accepted for aircraft interiors. Proof of that is the fact that the structural foam core has been approved by Airbus under AIMS 04-11-000 and ABS5927 standard. Fully recyclable and with reduced impact on the environment, it is a sustainable material for the future, and, combined with a thermoplastic skin made of the same polymer, *Divinycell F* offers an even greener solution.

For more information, please visit: fdccomposites.com