Decreasing lifetime cost and environmental impact
Diab knows what matters
The aerospace industry today is largely driven by life cycle cost and weight reduction. These objectives are putting high demands on aerospace manufacturers. Aerospace quality requirements leave no room for error, further increasing the challenge.

Diab combines market needs with innovative materials technology to achieve new significant results. We offer invaluable solutions because we know what matters.
Diab – a strategic partner

Diab offers several high-performance core materials for aerospace applications. In addition to our products, we support your efforts with technical expertise, structural engineering services and applications training.

**Competence gained through experience**
Decades of experience serving the aerospace industry have given us invaluable insight into your unique products and processes, enabling us to develop solutions adapted to your specific needs.

**Most valuable offering in the industry**
Diab serves a wide range of markets with diverse needs and challenges. Combining high-performance products with top-level engineering services, Diab presents a very wide and valuable offering. Diab also provides a complete set of engineering services through its Composites Consulting Group (CCG).

**Security of supply**
Diab is positioned to serve our customers locally while offering all the benefits of a global company. With sales and manufacturing plants in strategic locations around the globe, Diab ensures supply stability and consistent product quality – giving you security and flexibility.

**Innovation and quality**
At Diab, we are continually expanding our portfolio of core materials and services. Our dedicated R&D function and strict adherence to quality standards ensure we keep our customers in the forefront of the industry. Working closely with Diab gives you continuous access to innovation and product development in sandwich core and composite technology.

**Commitment**
Diab is a long-established, stable company with extensive experience of working with the aerospace industry. We take our customers’ trust very seriously. We honor our commitment by focusing on what is needed to make your products stronger, lighter and smarter. Now and in the future.
Go further with Diab

Diab has over 30 years of experience as a supplier to the aerospace industry. Being a world leader in polymer foam cores and composite sandwich solutions Diab has the products and experience to optimize life cycle cost and decrease environmental impact.

**Optimize life cycle cost**
Sandwich composite solutions are based on a holistic approach that takes into account design, manufacturing and quality requirements within aerospace.

**Decrease environmental impact**
High-performance foam core sandwich composite solutions that decrease weight and fuel consumption resulting in an increase in range and/or payload.

**Save cost**
By using a foam core, better surface is achieved out of the mold, minimizing the need for sweep and sanding. You save labor cost and achieve faster throughput in production.
Choosing the optimal solution

The aerospace industry has diverse needs. No two customers are alike. This is why Diab provides solutions rather than just products. Diab’s solutions combine high-performance cores with value-added services and engineering expertise.

**Divinycell F**

Divinycell F is the ideal core material for aerospace applications, especially well-suited for commercial aircraft interiors.

Divinycell F foam is a recyclable, prepreg compatible sandwich core with excellent Fire, Smoke and Toxicity (FST) properties, good mechanical properties and good processing characteristics. It meets the global regulatory requirements for commercial aircraft interiors. Other key features include exceptional fatigue performance, good aircraft fluid resistance, excellent heat ageing at 180°C and great dielectric performance. Divinycell F also exhibits exceptional hot-wet performance with nearly identical isothermal values in the wet and dry condition.

Divinycell F is one of the few core materials that offer exceptional OSU heat release performance and nearly zero smoke – well below the regulatory and industry requirements. Acoustical and thermal insulation performance is superior to rigid honeycombs.

Divinycell F is compatible with most common aerospace composite manufacturing processes and is particularly well suited in crush core press molding as it does not crack. It also performs well in traditional vacuum bag molding up to 205°C/400°F and resin infusion processing. Its smooth surface allows for elimination of film adhesive and reduced use of fairing materials. Use Divinycell F130 for lightweight edge fill and hardpoints. Divinycell F is coldformable, thermoformable or can be shaped with CNC machining. It is particularly suitable for free form parts.

**Application areas:**

**Cabin interiors**
Luggage bins, bin doors, ceiling panels, heads, lavatories, galleys, IFE components, crew rest modules, class partitions and seat shells.

**Structural components**
Radomes to aerodynamic fairings, antennas, rotor blades, cargo liners, freight containers and engine nacelles and cowlings.

Specific technical information can be found on the Divinycell F datasheet on the web, in various Diab technical manuals, or by contacting your local Diab sales representative.

For more information, please see the Diab Core guide at diabgroup.com or contact us for a printed copy.
Divinycell HT

Over 30 years of service within the aerospace industry

Divinycell HT has all the properties expected of a high-performance, lightweight construction material. It is a closed-cell, thermoformable foam core characterized by high ductility and resilience, giving excellent dynamic behavior under shock and dynamic load. Compatible with a wide range of matrix materials, it has low water absorption and is self-extinguishing. Divinycell HT suits various prepreg systems and is compatible with process temperatures up to 145°C / 295°F.

With superior impact performance, low susceptibility to hydrocarbons and other aircraft fluids and excellent dielectric properties, Divinycell HT is suitable for a wide range of structural and non-structural applications. It is available in a range of densities, as standard sheets or fabricated to customer specifications. It can also be laminated “out of the box” unlike other aerospace grade core materials.

The impressive performance of Divinycell HT at cryogenic temperatures has also made it a natural choice for space launch applications.

Application areas:

Executive and VIP interiors, commercial radomes, leading edges, fairings and flaps, rotorcraft components, cargo liners, propeller and fan blades, tankage for fuel, water and waste, general aviation primary structures.

Specific technical information can be found on the Divinycell HT datasheet on the web, in various Diab technical manuals, or by contacting your local Diab sales representative.
Core kit manufacturing
To substantially increase efficiency, save cost and improve quality, all of Diab’s materials can be delivered in ready-made engineered kits or any 3D shape. Each piece is pre-cut, shaped and formed as necessary and numbered to fit exactly into its designated place in the mold – eliminating the need for on-site shaping and cutting of flat sheets.

By minimizing raw material usage and delivering semi-finished kits according to our customers’ requirements, Diab minimizes manufacturing waste and maximizes finished product quality.

Complete range of finishing options
Selecting the correct finishing option in combination with the right kit can significantly improve cost, quality and efficiency. Diab provides a wide number of finishing options including grid-scored, double-cut and grooved/perforated forms specially designed for the revolutionary Diab Core infusion process.

Extensive application knowledge
Diab develops and manufactures core materials for many other industry segments, such as Wind, Marine, Transport, Subsea, Offshore and Industrial applications. Our offer includes the original Divinycell H, Divinycell HP, Matrix, Divinycell P (PET extruded foam) and ProBalsa balsawood core material.

Composites Consulting Group (CCG)
Composites Consulting Group (CCG), an independent Diab Group company, provides specialty composite technology services, including design, engineering, testing, tooling, process optimization and training.

To learn more about the possibilities of our high-performance core materials, please visit ccg-composites.com
More than 60 years of experience in high-performance core materials give us the highest competence level in the industry. Take advantage of our accumulated expertise to improve your own products. Download our knowledge guides at diabgroup.com
Divinycell-cored private jet

As the world’s largest civilian aircraft manufacturer for private airplanes, Cirrus Aircraft is the only production airplane manufacturer that utilizes sandwich composites in the primary structure of its planes. Its newest jet, the Cirrus SF50, features an all-composites airframe and a sandwich construction based on Divinycell HT.

With room for one pilot and six passengers, the Cirrus SF50 was built using Divinycell HT, primarily due to its durability, formability and low finished-part weight. Previous experiments with different materials had shown that Divinycell HT provided the best compromise of high-temperature process ability, damage tolerance from bird strike and best performance after impact.

On our website, diabgroup.com, you will find even more inspiration on how to make your products stronger, lighter and smarter.