

SHAPING THE SUSTAINABLE FUTURE OF CABIN INTERIORS





A VITAL STEP TOWARD A CIRCULAR ECONOMY FOR THE AEROSPACE INDUSTRY

Life cycle cost and weight reduction have been drivers in the aerospace industry for decades. Today there are also increasing demands for sustainable applications and production methods to decrease the carbon footprint. Air traffic habits are changing fundamentally, and new applications must serve recent trends, meet recyclable products' demands and create a circular economy. We are ready to change with the changing market, replacing traditional materials with recyclable, multifunctional, innovative core and sandwich materials.

Diab has decades of experience serving the aerospace industry. Our unique insights into products and processes, mixed with an innovative approach, have enabled us to create a broad and valuable offering. Aerospace quality requirements leave no room for error, further increasing the challenge. We meet market needs with high-performance materials, top-level engineering services and applications training to achieve new significant results and invaluable sustainable solutions.

SUSTAINABILITY IS IN OUR CORE

Our products contribute to energy savings and a lower carbon footprint. They will help you boost energy efficiency, reduce emissions, conserve natural resources, and create a longer life cycle for your product. Simultaneously, our customers in the aerospace market are setting increased demands for their suppliers regarding quality, safety, and environmental requirements. At Diab, we work hard to make a difference regarding sustainability. We are strongly committed to making your solution more sustainable in every way.

A PART OF THE RENEWABLE ENERGY SUPPLY CHAIN

Sustainability is one of our top business priorities. We have adopted the responsible framework of the UN Global Compact, our Sustainability report is publicly available, and our CO₂-reduction targets are approved by the Science Based Targets Initiative. We strive to be a part of the renewable energy supply chain and believe that this approach drives long-term profitability and competitiveness.

Our aim is to be the best partner for customers that want innovative solutions of high quality that benefits the circular economy.



THE AWARD-WINNING 100% RECYCLABLE PANEL FOR CABIN INTERIORS

We developed a new **recyclable 100% thermoplastic sandwich panel** for aerospace cabin interiors to answer current challenges such as **sustainability**, **REACH compliance**, production rate increases and a circular economy.

This solution is combining the advantages of our structural foam core Divinycell F and thermoplastic skins. Using only materials already tested and qualified by Aerospace OEM, the panel is fully compliant with all requirements within the industry. It's 100% recyclable, includes recycled content from our own production waste and is consequently 100% waste-free.

The cabin interior panel is produced with a new innovative manufacturing process that **decrease the production cycle time with 70-90%** and **reduces production costs by 20%** (on average). It also **decreases up to 10% of weight**, offering **30-80% higher mechanical and fire resistance behaviour** than current honeycomb core and phenolic resin solutions.

THE KNOWLEDGE AND CORE MATERIAL FOR YOUR THERMOPLASTIC PANEL

We at Diab have the knowledge and the core material for a thermoplastic solution that is already cabin compliant. We are ready to support you to bring this solution into flying applications.

Our panels for aerospace cabin interiors are made in a one single step process, including skins and core welding, shaping, and decorative film. Here you can see examples of different shapes, but there are endless possibilities.



Sidewall panel produced in partnership with the company Hutchinson.



Shaped and decorated parts produced in partnership with the company SOGECLAIR Equipment using AkzoNobel Intura Film for decorative laminates.



THE CORE MATERIAL FOR YOUR SUSTAINABLE SOLUTION

Divinycell F is a 100% thermoplastic PES core material, already REACH compliant. It's recyclable and has zero waste production process. A perfect sandwich core for commercial aircraft interiors. It is FST compliant, has low sensitivity to water absorption and excellent surface finish (labor hours savings).

Format		F40	F50	F90	F130
Length	mm	2440	2440	2440	2440
Width	mm	1220	1220	1066	965

AWARDS IN 2022



JEC WORLD INNOVATION AWARD Aerospace application category





Sustainable Cabin category



ACE AWARD (CAMX) Material and Process Innovation category

Together with our partners, we shape the future of cabin interiors.

SOGECLAİR

Diab

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Always at the core of your solution

Diab was founded in Sweden in 1950. Since the beginning and throughout our steady development into a global company, we have been dedicated to constant innovation and promoting the widespread adoption of structural core materials.

Our products and solutions have been used in marine, wind, aerospace, and industrial applications for decades and are qualified according to relevant industry standards. We offer a complete range of high-performance core materials, numerous finishing options and advanced kit operations.

Together with our powerful team of engineers, product specialists and process specialists at Diab Application Center, we present probably the broadest and most valuable offering in the sandwich composite industry.