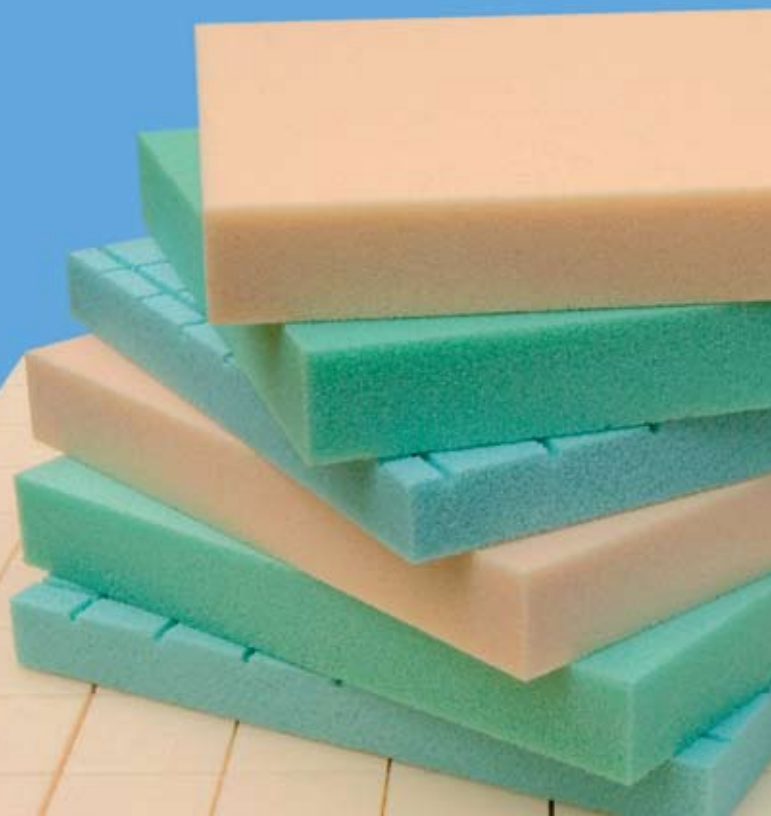
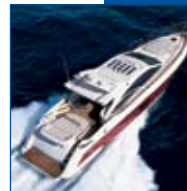


Divinycell[®]

The Ultimate Cores for Sandwich Structures



High Strength to Weight Ratios

Excellent Fracture Toughness

High Energy Absorption

Good Dimensional Stability

Small Cell Size

Excellent Insulation Properties

Good Chemical Resistance

Large Density & Thickness Range

Easy to Use

DIAB

Divinycell®

The Ultimate Cores for Sandwich Structures

Divinycell cores provide an ideal balance between performance and cost. In addition to their high strength to weight ratios, they have excellent ductile qualities that make them ideal for a wide range of applications where impact or slamming loads are likely to be experienced. Other features include excellent peel strength and dimensional stability, high insulation properties, low water absorption and good chemical resistance.

Divinycell® H - All Purpose Grade

H Grade is intended to be used for the vast majority of composite applications where both hand laminating and closed molding processes such as infusion are employed.



It offers very good compressive and shear properties (normally the most important core properties). Divinycell H also offers excellent ductility and high fracture toughness. Unlike more brittle cores, H can absorb the energy when deflected without structural failure.

It can also be processed at up to 90°C (194°F) with minimal dimensional changes and features a particularly small cell size to reduce resin usage.

Divinycell® HP - Elevated Temperature Grade

With its 145°C (293°F) processing temperature, Divinycell HP has been developed to be fully compatible with low and medium temperature prepreg systems. In addition major performance gains have been achieved in all critical areas. Strength and shear values are better than other commonly used 'elevated temperature' cores as is HP's ductility (energy absorption capability).

HP also has good residual strength at elevated temperatures making it ideal for temperature loaded components. Other critical areas where Divinycell HP significantly outperforms other elevated temperature cores are adhesion (peel strength), fracture toughness and dimensional stability.

Divinycell® F - The Ultra Low FST Grade

Divinycell F is the new low FST (fire, smoke and toxicity) core material from DIAB that has been specifically developed for commercial aircraft and public transportation. It more than exceeds the USA and European regulatory requirements for aircraft interiors. Also it meets the latest European fire standards for passenger trains. Other key features include 200°C (392°F) processing temperature, superior damage tolerance, exceptional fatigue life, low water absorption and excellent heat ageing at 180°C (356°F). Resistance to the majority of aircraft fluids is also excellent.



Divinycell® HT - Aerospace Prepreg Grade

Divinycell HT was developed for use with aerospace grade pre-pregs for interior and exterior use.



Divinycell® HCP - Buoyancy Grade

HCP grade, which offers excellent hydraulic compressive properties, was developed to meet the demand for a light weight, high-performance buoyancy material.

Standard & Special Finishing

All Divinycell grades can be supplied with a wide range of standard and custom finishes to facilitate installation, enhance component quality and for specific processes such as DIAB Core Infusion Technology™. These include: grid scoring, grooving, perforating and double contouring.

Ready-Made Kits

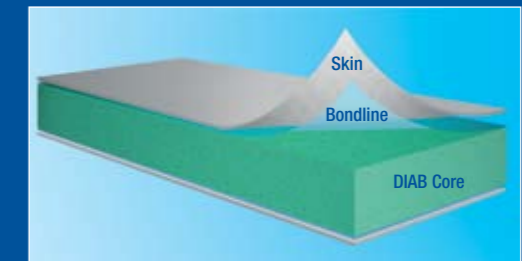
For those involved in series production, Divinycell core materials can be supplied in ready-made construction kits where each piece is pre-cut, shaped as necessary and numbered to fit exactly into its designated place in the mold. This substantially reduces build times, saves labor costs, improves quality and cuts waste.



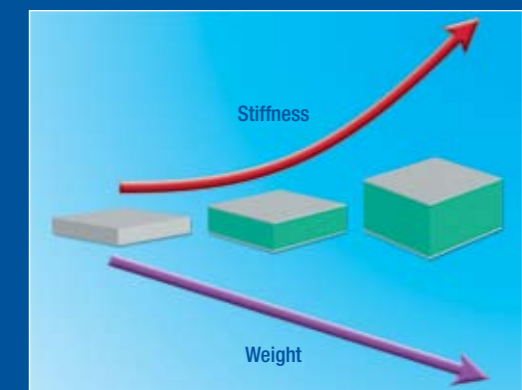
Worldwide Support & Service

Divinycell customers worldwide can take advantage of DIAB Technical Services' unrivalled level of support. The role of DIAB Technical Services is to partner and help our customers to take full advantage of the benefits of the DIAB sandwich concept. Their aim is to maximize time, labor and materials savings and improve quality while at the same time foresee and eliminate potential problems. With their unique, long term experience and intimate knowledge of sandwich composites and their application, they can help you with specific challenges or be involved in the complete product development cycle - design, engineering, prototyping, process development, training and manufacture.

The Sandwich Concept



The DIAB sandwich concept increases structural performance while optimizing weight. A sandwich consists of two high strength skins or facings separated by a core material. The skins take up the bending stresses and give the structure a hard wearing surface. The light DIAB core absorbs the shear stresses and distributes them over a larger area.



Compared to monolithic composite laminates or metals, the sandwich concept significantly reduces weight and increases stiffness while maintaining strength. Even higher strength and stiffness properties can be achieved by increasing the thickness of the core without a weight penalty.

The excellent strength-to-weight ratio of the sandwich concept can be used in a variety of ways - higher speeds, longer range, greater payload capacity or reduced power demand – all of which result in better operating economy. Divinycell sandwich composites require minimum maintenance and should any repairs be necessary, they can be carried out easily without any loss of structural integrity.

DIAB has pioneered the use of the sandwich concept to make structures that are significantly lighter and stronger than those made from steel, aluminum and wood.

The company is very much the technology leader. In addition to being the first company to introduce core kits, it has been in the vanguard of new environmentally-friendly processing developments such as DIAB Core Infusion Technology™.

We have always been much more than just a materials supplier. To this end we look to establish long-term partnerships with our customers by providing high performance composite materials and an extensive range of technical support services.

Our aim is to maximize time, labor and materials savings and improve quality while at the same time foresee and eliminate potential problems.

Divinycell is approved* by:



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