
Lightweight with CRP Sandwich components

Future issue - Lightweight construction

In times of constantly rising energy prices, it is more important than ever to use lightweight materials. Using **lightweight materials** in cases of moving mass reduces energy and material consumption, which in turn improves the material efficiency and cost effectiveness. Therefore we would like to present our new product:

Sandwich panels based on aluminum or aramid fiber core with skins of **carbon fiber reinforced plastic (CRP)** with brilliant mechanical properties. Here are some advantages:

- **Reduction of weight**, achieving the same or even better mechanical properties
- **Decrease of the inertia moment**
- **Reduction of the natural frequency** by higher rigidity
- **Reduction of energy and material consumption**
- **Decrease of the drive power**

Applications

- **Shipbuilding** (catamarans, race and sport boats)
- **Custom machine engineering** (laser cutting machine)
- **Aircraft Industry** (aircraft floors)



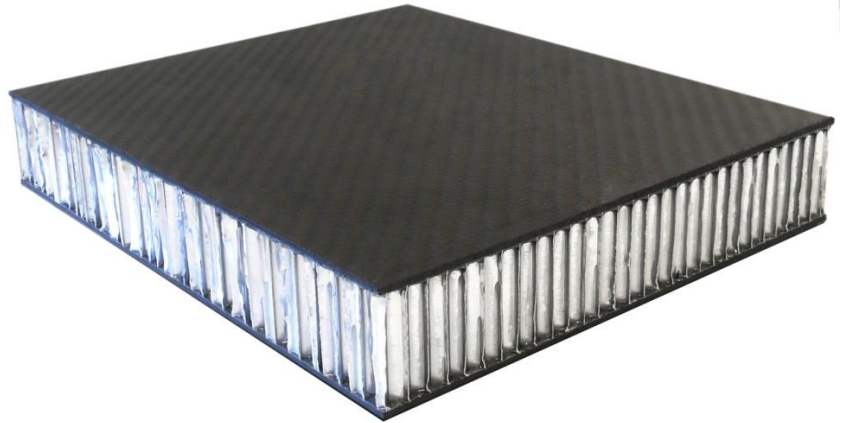
Hatch of a catamaran
Carbon surface layers with milled edge closure

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CRP-component for mechanical engineering

CRP panel is based on an aluminum honeycomb core

- Standard manufacturing size is 1250mm x 2500mm (smaller or bigger sizes are possible on request)
- Surface layers of several **high modulus fiber prepreg**
- Surface layer strength and direction depends on the required mechanical properties



Detail of a CRP panel with aluminum honeycomb core

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