

MARINE & SHIPBUILDING

GEL COMPONENTS

ABOUT US

With over 30 years of experience, CEL Components is a global leader in the manufacture of sandwich and honeycomb panels. CEL Components panels are manufactured in Italy, at our headquarters in Granarolo dell'Emilia, near Bologna.

Materials are selected through a rigorous evaluation process that carefully assesses suppliers, their manufacturing capabilities and the quality of the products supplied, with particular attention to environmental sustainability. Eco-compatible materials and low-impact processes are therefore preferred.

Customer satisfaction is our primary objective. For this reason, we are committed to supplying only materials made from components of the highest quality, resulting from long and stringent selection processes.

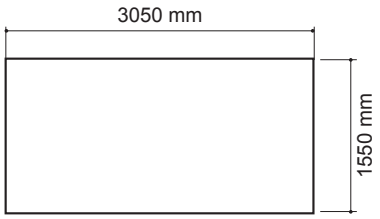
PRODUCTION RANGE

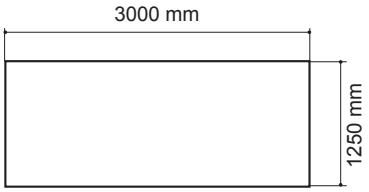
The CEL Components production range is characterised by a high level of versatility, allowing customisation of dimensions, skin combinations and core types, finishes and machining.
Upon request, selected panels can also be supplied in non-standard extra-large formats, ensuring tailor-made solutions that fully meet each customer's specific requirements.

STANDARD PANEL SIZES

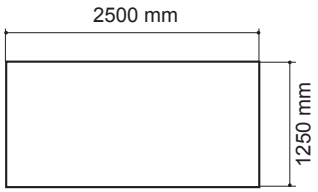
Panels with aluminium honeycomb core

MAX





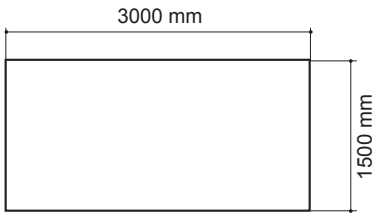
MIN



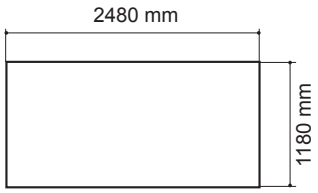
Oversized dimensions available on request

Panels with polypropylene honeycomb core

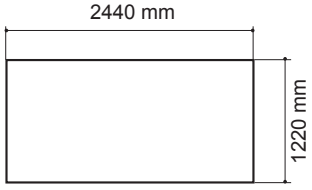
MAX



MIN



Panels with aramid paper honeycomb core

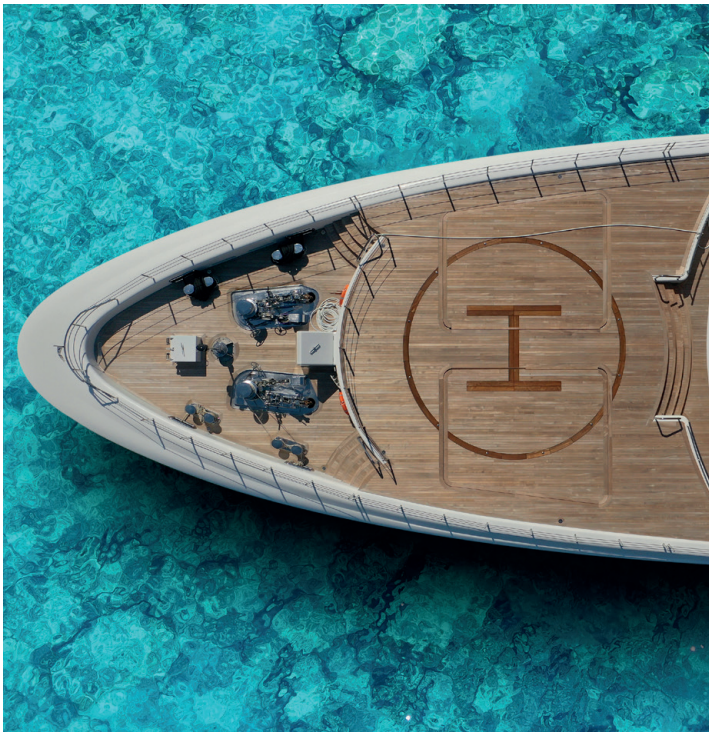


MARINE & SHIPBUILDING

In the marine and shipbuilding sector, bulkheads and interior furnishings are distinguished by their exceptional lightness combined with high mechanical and structural strength, available in a wide range of finishes. These characteristics define the custom-made sandwich panels produced by CEL Components.

In this field, ensuring lightweight structures with high mechanical performance is essential to improve efficiency and reduce fuel consumption.

Thanks to its extensive range of panels, CEL Components offers customised solutions for numerous applications, including structural and partition bulkheads, flooring for technical areas, furnishings, deck panels and supports for solar panels.



RECREATIONAL BOATING

The combination of lightness, high performance and attention to onboard comfort makes sandwich panels particularly appreciated in the recreational boating sector.

Ease of use and the wide choice of aesthetic finishes highlight their versatility, allowing application both on small boats and on mega yachts.

These panels are used for deck structures and support elements, manufactured using materials ranging from fibreglass to marine plywood.



LARGE CRUISE SHIPS

On large cruise ships and high-speed ferries, passenger safety and comfort are essential requirements.

To meet these needs, CEL has developed certified products offering high performance, ease of installation and extremely low weight.

These products feature excellent fire performance, as in the case of COMPOCEL AL FR, ALUSTEP F, ALUSTEP FN, NDA ALU, ALUSTEP HFR and COMPOCEL ALF.

The panels are used in applications such as suspended ceilings, partition walls and flooring for technical areas.



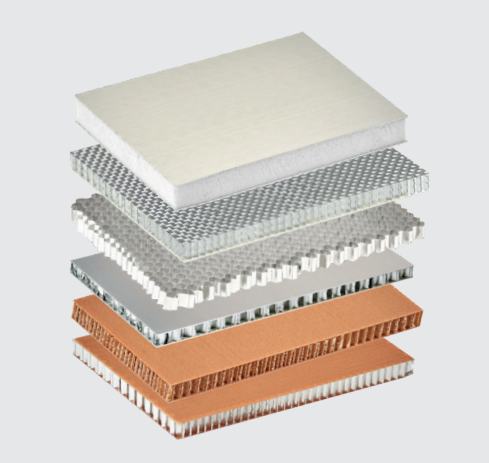
CERTIFIED PANELS

CEL Components offers a range of panels certified for fire reaction, in compliance with the stringent regulations of the marine and shipbuilding sector.

International IMO regulations include several certifications, such as non-combustibility, low flame spread and C-class bulkhead certification.

The aluminium honeycomb core has achieved excellent results, being certified as non-combustible, while the sandwich panels COMPOCEL AL FR, COMPOCEL ALF, ALUSTEP HFR, ALUSTEP F and ALUSTEP FN obtained IMO MED Module B and D certification for low flame spread.

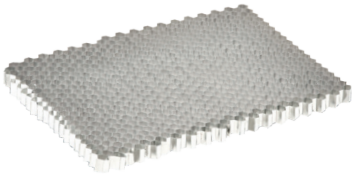
In addition, COMPOCEL AL FR has also achieved C-class bulkhead certification, confirming its suitability for applications requiring the highest safety standards.



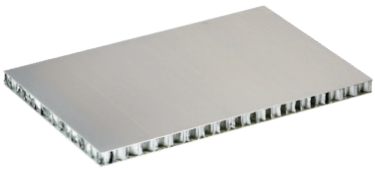
FIRE PERFORMANCE & CERTIFICATIONS

PRODUCT	DESCRIPTION	NORM	CLASSIFICATION
NDA ALU	Aluminium honeycomb.	FTP CODE 2010 - 3.13 MED IMO 0407 U.S Coast Guard	**MOD. B & D** **NON-COMBUSTIBILITY**
COMPOCEL AL FR	Aluminium honeycomb sandwich panel.	FTP CODE 2010 - 3.64	**BULKHEAD C. CLASS DIVISION** **NON-COMBUSTIBILITY**
COMPOCEL AL FR	Aluminium honeycomb sandwich panel.	FTP CODE 2010 - 3.18 MED IMO 0407 U.S Coast Guard	**MOD. B & D** **LOW FLAMESPREAD**
COMPOCEL ALF	Sandwich panel with PET P90 100 foam core and aluminium skins.		
COMPOCEL ALH	Aluminium honeycom sandwich panel with a CPL decorative skin on one side		
ALUSTEP HFR	Sandwich panel with aluminium honeycomb core and fibreglass skins impregnated with epoxy resin.		
ALUSTEP F	Sandwich panel with aluminium honeycomb core and fibreglass skins impregnated with phenolic resin.		
ALUSTEP FN	Sandwich panel with nomex honeycomb core and fibreglass skins impregnated with phenolic resin.		

PRODUCT & SOLUTION RANGE



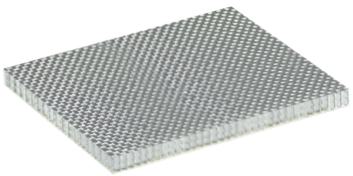
Aluminium honeycomb core



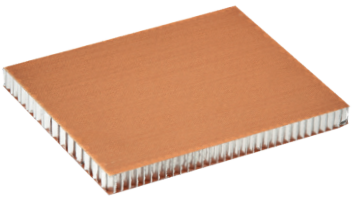
Compocel AL FR
Aluminium honeycomb core with two aluminium skins.



Compocel ALF
Aluminium skins with PET foam core.



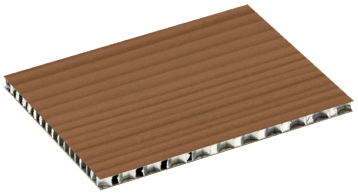
Alustep HFR
Fibreglass skins impregnated with epoxy resin and aluminium honeycomb core.



Alustep F
Fibreglass skins impregnated with phenolic resin and aluminium honeycomb core.



Alustep FN
Fibreglass skins impregnated with phenolic resin and aramid paper honeycomb core.



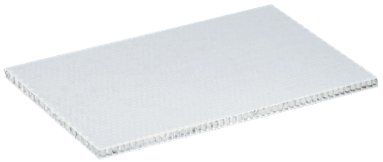
Compocel ALH
Decorative CPL layer on one face, aluminium skins on both sides and aluminium honeycomb core.



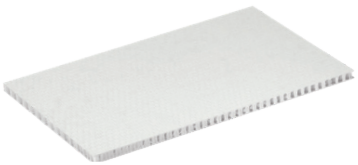
Compocel AL FLOOR
Aluminium skins (chequer plate or stucco embossed finish) and aluminium honeycomb core.



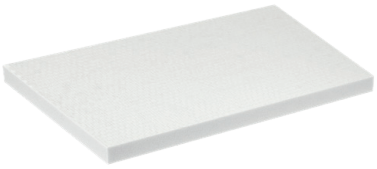
Compocel W / WP
Marine plywood skins with aluminium or polypropylene honeycomb core.



Alustep W
Fibreglass skins impregnated with epoxy resin and aluminium honeycomb core.



Clearstep
Fibreglass skins impregnated with a transparent resin and polypropylene honeycomb core.



Clearpet
Fibreglass skins impregnated with a transparent resin and PET foam core.


(1)


(2)


(3)


(4)


(5)

IMAGES

Applications across different sectors:

(1) Partition walls for large cruise ships;
(2) Suspended ceilings and partition walls;
(3) Furnishing elements and cladding for boats;
(4) Panels for technical area flooring;
(5) Support panels.

USEFUL INFORMATION

MACHINING / INSTALLATION / MAINTENANCE

Sandwich panels can be machined using a wide range of equipment, from traditional woodworking saws to advanced CNC machines. These precision operations are carried out by specialised operators using numerically controlled machinery.
CEL Components offers squaring and shaping operations. The panel user manual specifies the conditions under which the material must be stored and preserved to ensure optimal performance.
The main factors affecting panel preservation include storage temperature, handling, exposure to light and weather conditions.

RESEARCH

Quality is a key strength of CEL Components products, with state-of-the-art solutions designed to meet specific customer requirements. The company operates three in-house laboratories for chemical and mechanical testing.
For tests and trials requiring compliance with mandatory standards for different application sectors, CEL Components relies on external laboratories with which it has established long-standing partnerships. CEL Components works closely with its customers, developing products by testing new materials as well as non-standard finishes. This approach allows the company to offer a highly competitive and continuously improving design support service.

SUSTAINABILITY & ENVIRONMENT

Environmental impact and process sustainability are central priorities throughout the panel production cycle.
On the one hand, production facilities have been designed to limit both airborne and noise emissions; on the other, waste heat generated by the plants is recovered and reused to heat the premises, reducing the need for alternative energy sources.
Whenever possible, CEL Components selects local suppliers in order to limit long-distance transport.
This approach not only reduces hydrocarbon emissions, but also supports the local economy and speeds up panel production, enabling competitive delivery times.
Furthermore, the company minimises raw material waste by using production offcuts for material testing or small sample production.
Where possible, paper or cardboard packaging is used, reducing reliance on polymer materials with a higher environmental impact.
The manufacture of lightweight panels also reduces the overall use of raw materials, contributing to a more sustainable environmental footprint.

HEALTH & SAFETY

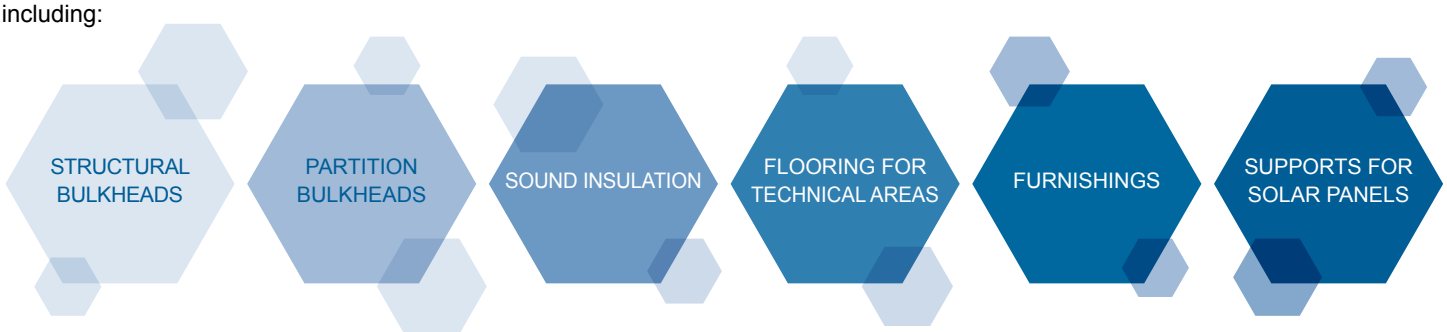
Protecting workers' health and ensuring overall safety are primary company objectives.
Employee wellbeing and workplace safety are continuously monitored, including the regular use and replacement of personal protective equipment.
The company has adapted its operating standards to comply with mandatory regulations, achieving an effective balance with production requirements.
CEL Components operates in accordance with ISO 9001:2015 and has started the certification process for ISO 45001.

RECYCLING

Some CEL Components products are fully recyclable, such as aluminium honeycomb cores and the COMPOCEL AL FR panel. As part of its commitment to sustainability and environmental responsibility, CEL Components offers PET-STEP: a green solution combining recycled materials, glass fibre and PET, without compromising lightness or high mechanical performance.

APPLICATIONS OF CEL COMPONENTS PANELS

CEL Components panels for marine and shipbuilding applications offer numerous advantages and are ideal for a wide range of uses, including:



CEL COMPONENTS

HONEYCOMB AND SANDWICH PANELS

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