

POTMA

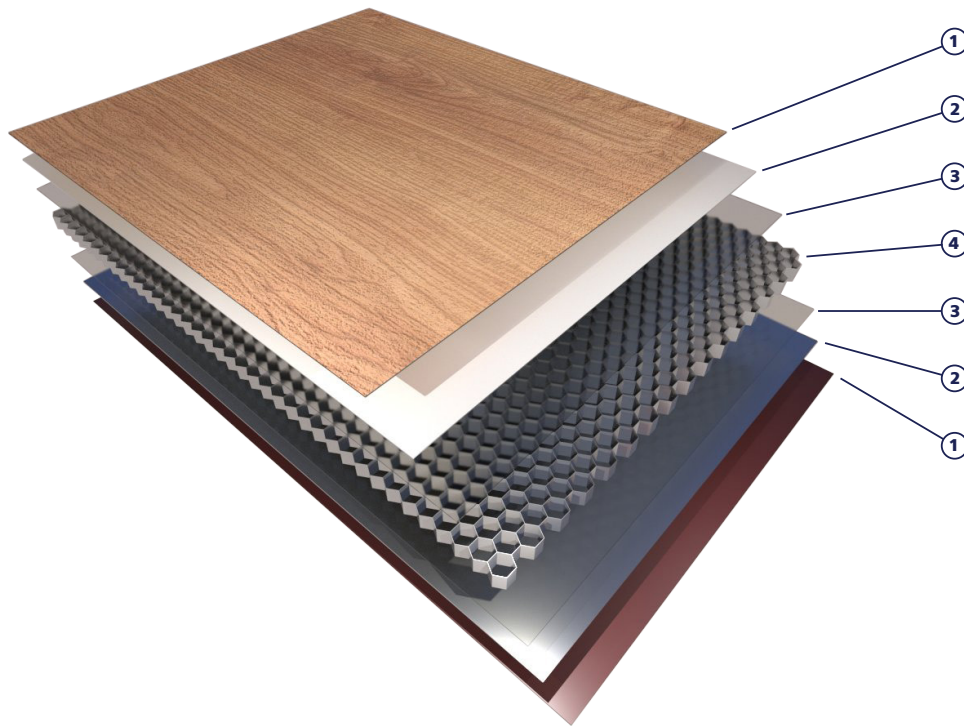
THE LIGHTWEIGHT CHAMPION

where strength and lightness matter



In the core of **lightness.**

The brilliant honeycomb structure is naturally **lightweight** and **durable**



1. Optional surface
2. Sheet plate / skin
3. Adhesive
4. Honeycomb core

Features of Potmacore

Lightweight

Superlight compared to traditional materials, such as wood, gypsum board, etc.

- In thickness of 10 mm ~ 50% lighter
- In thickness of 24 mm ~ 70% lighter

High strength

10 mm-thick panel ~ carries over 2,000 kg/m² equal load

14 mm-thick panel ~ carries over 3,000 kg/m² equal load

Easy to shape

Further processing is easy and convenient using standard woodworking machines and tools.

Precise

Accurate tolerances, optimal flatness and stability with minimal thickness and big dimensions.

Decorative

In addition to basic primer surfaces, also individual surface design through digital printing, laminating, painting, wallpapering, etc.

Technical performance and decorative finishing of the same product.

Tailor-made

Edge trimmings, thicknesses, curve shapes and much more without any minimum order quantities – tailored for the needs of the customer.

Environmentally friendly

Potmacore panels are 100% recyclable without separating the structure layers.

Pre-treated aluminium through the structure gives excellent corrosion and moisture resistance.

Also available as low carbon aluminium: ask us for more details!!

Quality

Our products and production process are certified. Regular third-party audits are an integral part of our business culture and quality management process.

Products are tested and certified on several different structure combinations to cover the needs of different customers in different market areas.

Certified according to the standards in:

Marine industry



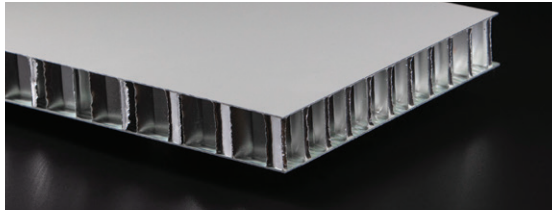
Railway industry



Construction industry



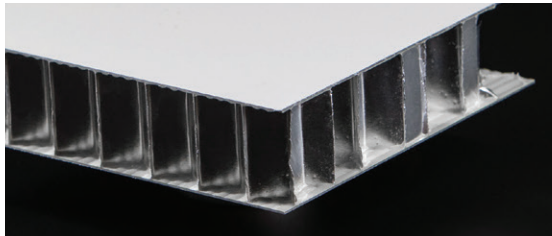
Potmacore honeycomb panels



Potmacore

Both surfaces are coated with epoxy primer, which creates an excellent adhesion for gluing, painting, etc.

Epoxy-primer coating is always provided as standard, unless another surface treatment is required.



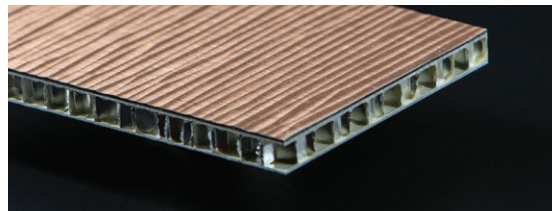
Potmacore C and C/1

A honeycomb panel with pre-painted surfaces with temporary protection films.

C means that both surfaces of the panel are paint-coated.

C/1 refers to a panel with one paint-coated and one epoxy-primed surface.

Our stock colour is RAL9010 (gloss level 30–35), whilst other colours are available upon request.



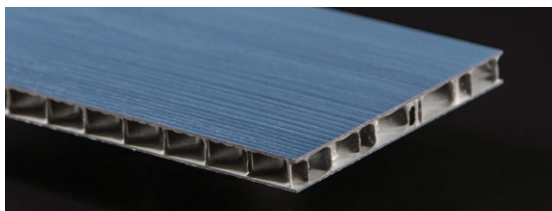
Potmacore Lhl and Lhl/1

A honeycomb panel with laminated surfaces.

Lhl means that both surfaces of the panel are laminated.

Lhl/1 refers to a panel with one laminated and one epoxy-primed surface.

Digitally printed laminates are also available.



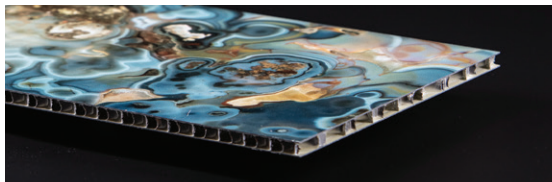
Potmacore V and V/1

A honeycomb panel with PVC glued on surfaces.

V means that both surfaces are coated with vinyl.

V/1 refers to a panel with one PVC-coated surface and one epoxy-primed surface.

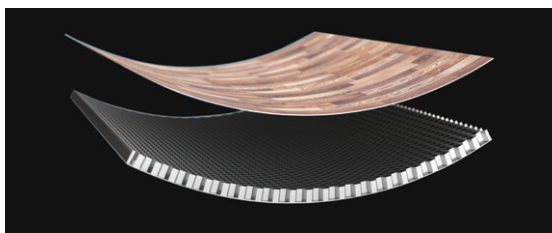
Digitally printed vinyl surfaces are also available.



Potmacore C-PU / 1

Honeycomb panel with an image specified by the customer printed on one aluminium surface.

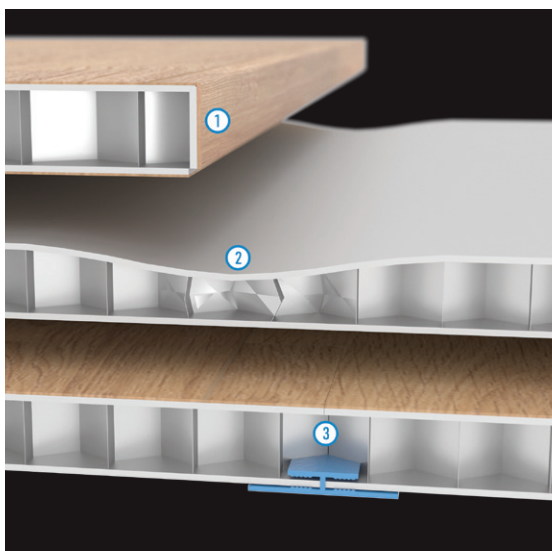
The other surface of the panel is epoxy-primed.



Potmacore PV

All panel alternatives are also available as semi-finished. In this case, one surface board is attached to the honeycomb core and the other is also delivered but loose.

This enables the making of curved surfaces. The semi-finished board can be bent to the required curve, after which the other surface panel will be glued in its position to create a rigid, lightweight and curved structure.



Potmacore B

The following edge trimmings are available:

Bend edge (pos. 1 in picture)

- This makes it possible to cover the core from the sides with the same surface decor as the rest of the panel. In addition, bending reinforces the edges of the panel and also allows for fixings to the edges.
- For panels with thicknesses of 6–20(25) mm.

Edge-thinned panel (pos. 2 in picture)

- Panel edges are pressed thinner (similar to a plasterboard, Gyproc, etc.), when more space is needed for a filler or joint tape at the junction of panels.

Grooved edge (pos. 3 in picture)

- Grooving of the edge of the panel makes it possible to use a hidden H-profile in the joint of the panels. The H-profile is also available from Potma.
- Edge trimming can be selected from one to all four edges, depending on the customer's needs.

Applications

Offshore and onshore industry

- Luxury cruise ships; staircases, flat roofs, frames for wet rooms, other public areas, balcony dividers
- High-speed vessels
- Furniture frames
- Life-circle services, renovations and modernisations

Special construction

- Lift industry
- Constructors of clean rooms and facilities
- System manufacturers

Construction industry

- Facades
- Modular units
- Wet rooms

Transport industry

- Furnishment of railway industry
- Equipment manufacturers for loading bays



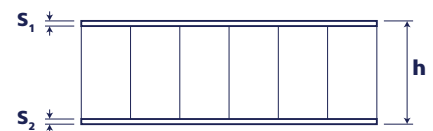
Structure

Stock sheet plates

Thickness 0.5 / 0.7 / 1 mm (S_1 , S_2)

- EN AW 3005 pre-treated
- EN AW 5005/5754 pre-treated

Other types also available upon request.



Honeycomb core

Standard core material, EN AW 3003 pre-treated.

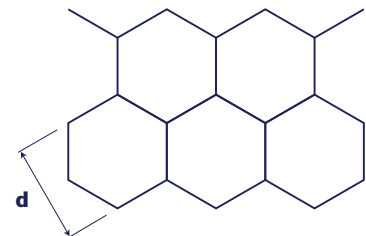
Honeycomb core cell diameters (d) divided by product types.

Potmacore 096 $d = 9.6$ mm

Potmacore 128 $d = 12.8$ mm

Potmacore 192 $d = 19.2$ mm

Other types also available upon request.



Panel dimensions

Total thicknesses of the honeycomb panels (h) from 6 mm > 100 mm “stepless” and without min. order quantity per thickness.

Width (w) from 1,000 to 1,500 mm

Length (l) from 2,000 to 4,000 mm

Panels cut to wanted delivery dimensions upon request.



Adhesive

Sheet plates and core mesh are joined with weatherproof adhesive.

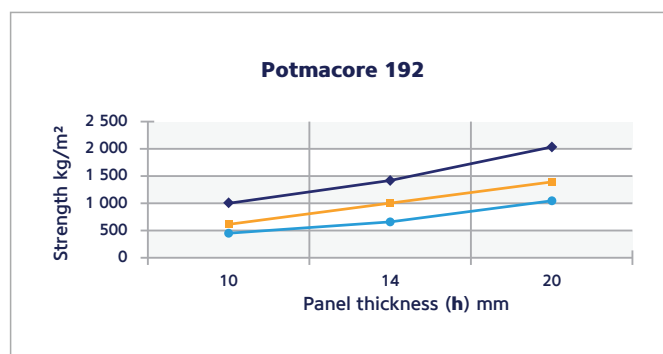
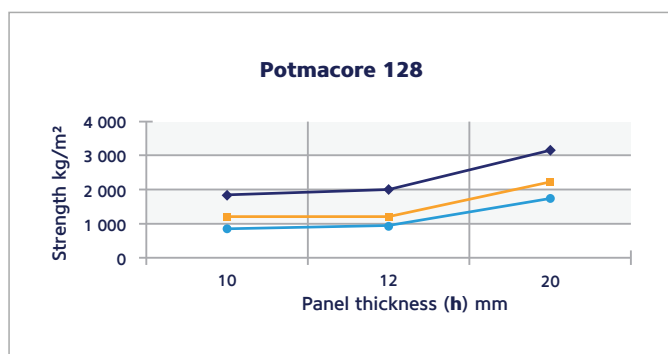
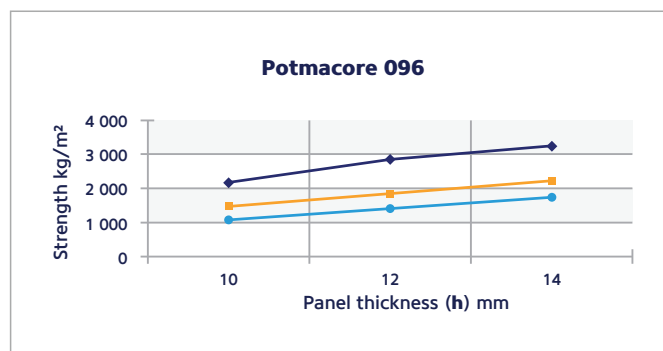
Also possible optional surfaces (e.g. hpl-laminates) are joined with weatherproof adhesive.

Technical properties

Strength test

- Permanent deformation after the test.
- Performed by VTT Technical Research Centre of Finland
- Chart for strength test:
 - vertical axel is the load on top of the panel
 - horizontal axel is the thickness (**h**) of the panel
 - colour of the line shows what is the supporting/ binding interval behind the panel

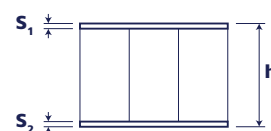
- ◆ Binding interval a=1200 mm b=600 mm
- Binding interval a=1200 mm b=1200 mm
- Binding interval a=2400 mm b=1200 mm



Sound insulation for Potmacore panels

According to: ISO 10140-5 / ISO 10140-2:2010 / ISO 717-1

Panel type	S ₁ mm	S ₂ mm	h mm	R _w dB
Potmacore 096	0.7	0.7	6	21
Potmacore 096	0.7	0.7	20	21
Potmacore 128	0.7	0.7	20	22
Potmacore 192	0.7	0.7	35	22
Double structure				
Potmacore 096 + Potmacore 096	0.7	0.7	20	27
Potmacore 096	1.0	0.7	6	



Insulating graph in different frequency (Hz) available upon request.

Weight chart

Potmacore 096

Panel thickness, (h) mm	5	6	7	8	9	10	12	14	15	16	18	20	22	24	25
Weight, kg/m ²	4.64	4.70	4.75	4.81	4.87	5.02	5.14	5.25	5.30	5.36	5.47	5.59	5.70	5.81	5.87

Potmacore 128

Panel thickness, (h) mm	5	6	7	8	9	10	12	14	15	16	18	20	22	24	25	26	28	30	32	34	36
Weight, kg/m ²	4.57	4.61	4.64	4.68	4.72	4.85	4.93	5.00	5.04	5.07	5.15	5.22	5.29	5.37	5.40	5.44	5.51	5.59	5.66	5.73	5.80

Potmacore 192

Panel thickness, (h) mm	12	15	20	25	35	38	80	100
Weight, kg/m ²	4.81	4.89	5.01	5.14	5.40	5.47	6.54	7.06

Note! Weights are theoretical values. Panel: 2 x 0.7 mm thick AL-sheetplate, AL-honeycombcore and adhesives.

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We are the masters of combining the best of both worlds, where strength and lightness matter. Our innovative product development and the ability to create outstanding solutions for industrial use make Potma the lightweight champion.

Potma Oy was founded in 1973. Since then, we have been specialising in the development of honey-comb structures for a number of applications. We are proud of the quality of our products, our reliable deliveries and our ability to quickly respond to the needs of each individual customer. We do not have prefabricated solutions; instead, every delivery is customised to the specifications of each customer.

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