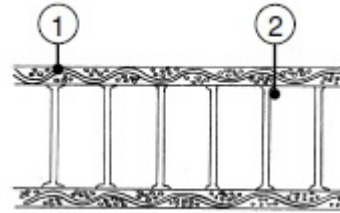


Data

The Omnia panel is a thermoplastic sandwich panel, consisting of polypropylene honeycomb and glass fibre reinforced polypropylene face sheets, which are joined together by a lamination/melting process.



1. Longitudinal- and transverse filaments in PP-matrix

2. Honeycomb with cell walls melted to face sheets

Face Sheets

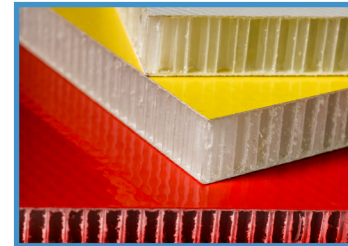
The face sheets on both sides are of the same thickness and have following specifications: Standard: single-layered on each side, natural colour (opaque-white) with a thickness of 0.7 mm (meaning 980 g/m² in woven fabric).

Standard	0.7 mm natural colour	980 g/m ²
On request	0.7 mm black	980 g/m ²
	1.0 mm natural colour/black	1,485 g/m ²
	1.4 mm natural colour/black	2 x 980 g/m ²



Honeycomb

Standard	PP-honeycomb	Density	80 kg/m ³
On request	PP-honeycomb	Density	100 kg/m ³
		Density	120 kg/m ³



Surface coating

Optional	Painted White, system:	Plasma-treatment – bonding agent, filler and PU coat
On request	Special colour	
	Anti-Slip-Surface	
	Non-Woven polyester textile finish	

The paint surface can be over coated with accepted vehicle paints and glued with PUR- and MS-Polymer adhesives. Non-woven polyester textile can be applied as a surface ready for bonding. Special specifications on request from 500m²

Technical Delivery Terms

Panel Sizes		
Length	<15.6	
Width	2300 / 2440 / 2500 / <2780 (Other on request)	
Tolerances	Length	
	Width	
Planarity ¹	± 2mm	Incase Length ≤2,750 Incase Length 2,750 < length ≤6,800 Incase Length > 6,800
	± 4mm	
	8mm	
	± 4 mm/m	

The surface flatness tolerance refers to the state of the panel upon dispatch. Special sizes are available upon request.

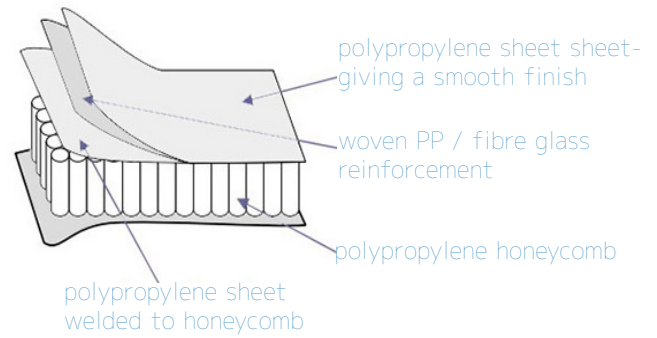
Panel Thickness		
Standard	20 and 25mm	Tolerance: ± 0.3mm
On request	15 to 50mm	Tolerance: ± 0.5mm

Properties

Weight

The weight of a panel consists of the combined weight of both the outer face sheets and the honeycomb core.

For a 25mm panel the weight is 4.4 kg/m² and the 30mm panel is 4.8 kg/m².



►Weather resistance

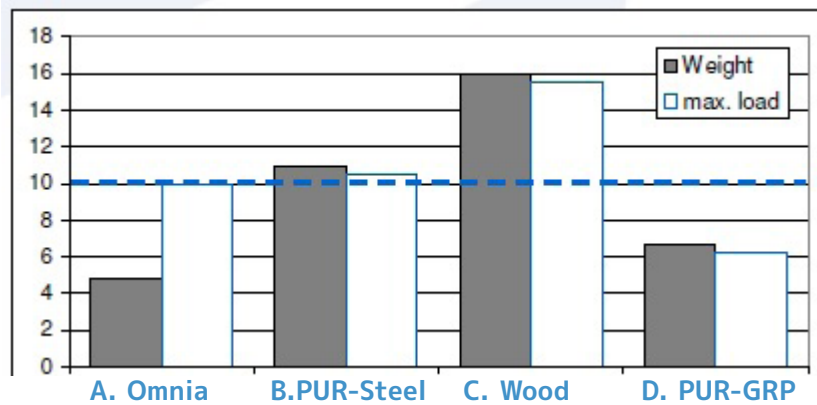
The face sheets guarantee excellent UV-protection. Fire according to manufacturer tests in a desert area of Arizona. The panel has excellent UV resistance with no important signs of aging compared to similar plastic materials, which have a stronger tendency to surface cracks at intensive UV-irradiation.

The Omnia panel does not decompose and is resistant to salt water. Chemical resistance is very high and the product also offers high resistance against oil, fats, and the most commonly used agents.

►Compression strength

The compression strength at short time load to an area of 50x50 mm² is 2.3 MPa.

►Bending Properties



The figure shows the strength in kg/cm width at centred line load on a panel having a bearing distance of 750 mm compared to a weight per unit area of kg/m².

Materials:

- A: 30 mm Standard Omnia
- B: 40 mm PUR, 0.6 mm Steel
- C: 16 mm Plywood
- D: 40 mm PUR, 2 mm GRP

►Fire

Uncoated Omnia panel is normal inflammable according DIN 4102 – meaning B2.

A typical fire proof paint coating achieves fire precaution class F1 according to DIN 53438-3.

►Heat Insulation

Thermal Insulation Behaviour of Standard Panels

25mm	Heat transfer coefficient K	2.5	W/m ² K
30mm	Heat transfer coefficient K	2.2	W/m ² K

►Post Fabrication and Forming

The Omnia panel can be shaped by rebating and thermal forming. Suitable techniques for joining components are: riveting, welding or gluing.

For applications, treatment and storage please pay attention to the safety data sheet of the manufacturer.

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The specifications in this data sheet represent the current state of our technical knowledge and its purpose is to inform about the Omnia panel and its applications. The specifications therefore do not guarantee particular properties or suitability for a specific application. We reserve the right to make changes in accordance with technological processes and other developments. We guarantee faultless quality in accordance with our conditions of sale.