

Polycarbonate honeycomb core

The main application for polycarbonate honeycomb is laminar directional flow ventilation deflectors, ventilated curtains for the commercial refrigeration industry, wind tunnels and climatic chambers.

With polycarbonate honeycomb deflectors, flow efficiency and effectiveness are significantly improved, turbulence is eliminated, and pressure losses, energy consumption and noise are reduced.

The polycarbonate honeycomb also proves to be very versatile in lighting technology. Indeed, it has the ability to channel light beams.

In visual grade, the positioning of the cells is controlled one by one for superior quality. Its processing can generate extra costs.

The standard quality is still a high level product but occasionally it may present defects. Use and performance remain unconditional except for the lighting industry.

Lighting customers are requested to always indicate the need for a visual grade quality honeycomb.

Polycarbonate honeycombs with a density of 200 kg/m³ are also excellent shock absorbers for vehicle protection while using lower densities results in lightweight, breathable anti-trauma structures.

CEL Components honeycombs set new standards in energy absorption. In fact, the uniform crushing of the cells absorbs kinetic energy at a constant compression level up to a reduction of 78% of their initial volume. We provide special densities depending on the desired level of energy absorption.

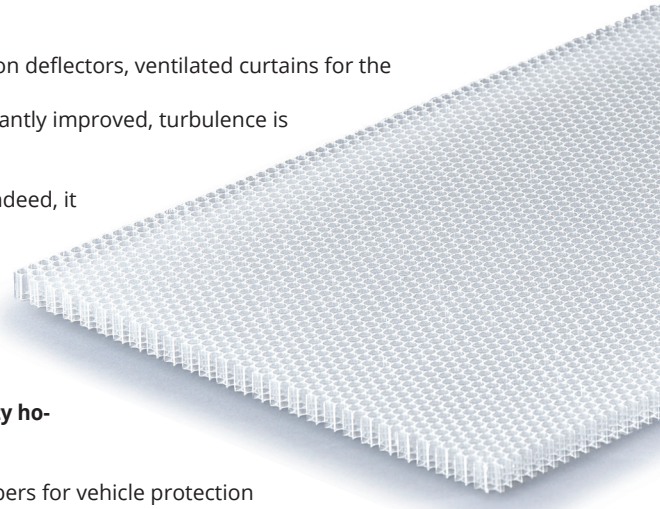
Transparent-coloured polycarbonate can also be used for decorations and special applications.

The polycarbonate honeycomb stands out because it is:

- easy to apply;
- customisable;
- waterproof and washable;
- 100% recyclable

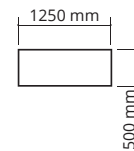
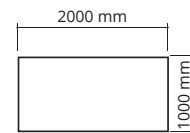
We supply two types of polycarbonate:

- Visual grade polycarbonate;
- Standard grade polycarbonate



Honeycomb core's properties	standard		on request		
	3,5-90	6,0-70	2,5-110	4,0-80	7,0-70
Type					
Cell size mm	3,5	6,0	2,5	4,0	7,0
Colour	grey • white • trasparente • black				
Density kg/m ³	90	70	110	80	70
Compressive strength MPa	2,8	1,9	3,6	2,2	1,8
Compressive modulus MPa	115	95	155	106	95
Shear strength MPa	1,3	1,0	1,5	1,1	1,0
Shear modulus MPa	22	19	25	21	19
Effective temperature range °C	from -40 to +110				
Thickness mm	from 3 to 300				
Maximum length mm	3000				
Maximum Width mm	1350				

Standard dimensions
(other dimensions available on request)



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