

Aluminium Honeycomb Core

Aluminium honeycombs and panels made with it offer the advantage of lightness, compression and shear resistance, fire and corrosion resistance and the possibility to be recycled.

Aluminium honeycomb is used in a number of applications, for example, in public transport industry, in nautical sector, for tool machines, for serigraphy and building industry, etc...

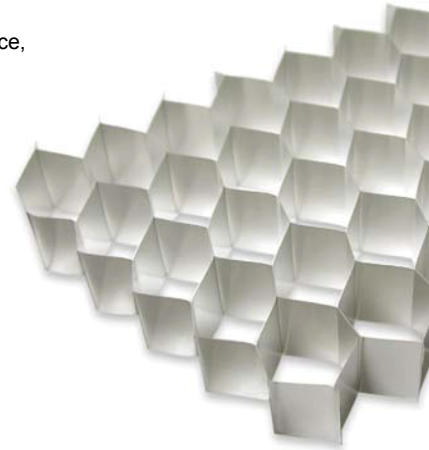
Aluminium honeycomb is used as core material for sandwich panels: floors, roofs, doors, partitions, facades, working surfaces for automatic machines and for all products which require an optimal stiffness-to-weight-ratio.

Aluminium honeycomb as panels' core is the winner because of:

- lightness
- stiffness
- fire resistance
- compression, shear and corrosion resistance
- flatness

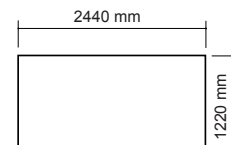
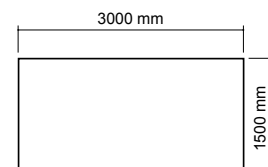
Aluminium honeycomb without skins can be used as deflector for laminar flow-ventilation, and as crash-absorber for absorbing kinetic energy.

Regarding the aluminium honeycomb the client can choose a thickness from 3 until 300 mm, a cell size from 6 until 25 mm and a density from 20kg/m³ until 80kg/m³ (the density depends on the foil's thickness and on the cell size).



Honeycomb core's Properties					
Type	ALUMINIUM ALLOY 3003				
Thickness mm	From 3 to 300 standard tolerance ± 0.10 mm				
Effective Temperature Range °C	From - 50 + 175				
Cell Size mm [D]	6	9	12	19	25
Density [kg/m ³]	80	54	38	30	20
Compressive Bare Strength [kg/mm ²]	0.47	0.26	0.14	0.09	0.05
Crush Strength [kg/mm ²]	0.19	0.08	0.05	0.03	0.02
Bonding Strength [kg/mm ²]	36	28	26	21	19
Compressive Stabilised Strength [kg/mm ²]	0.50	0.27	0.15	0.09	0.06
Compressive Stabilised Modulus [kg/mm ²]	111	67	31	18	12

Standard dimensions (other dimensions available on request)



Alloy 3003 aluminium honeycomb is sold **perforated** or **non perforated** (the micro perforations allowing air flow between cells, for use under vacuum or decompression) in three forms: **unexpanded block non perforated, unexpanded slices, expanded sheets.**