

Aluminium honeycomb

Aluminium honeycomb is used for several of applications (i.e. for tool machines, for serigraphy..etc.) and in different sectors such as: public transport industry, nautical sector, building industry, etc...

As core material, aluminium honeycomb is used in sandwich panels and it is utilised in: 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 has several advantages:

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

Aluminium honeycomb can be used as deflector for laminar flow-ventilation, and as crash-absorber for kinetic energy.

Thickness of non-expanded Blocks: 1000mm standard, the diameter of the cells from 3 to 25 mm. The density of the honeycomb depends on the thickness of the foil and the diameter of the cells.

Thickness of expanded section from 3mm to 60 / 200mm approx. (depending on the cell diameter).

Honeycomb density (from 20 to 163 kg/m³) depends on foil's thickness and on cell size.

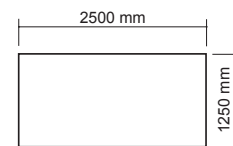
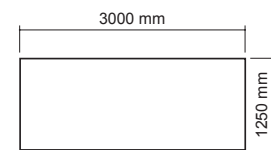
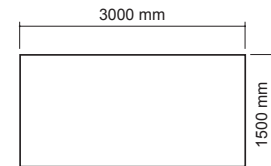
CERTIFICATE FOR SHIPBUILDING INDUSTRY: IMO MED, FTP CODE 2010 Mod. B. and D

CERTIFICATE FOR CONSTRUCTION INDUSTRY: UNI EN 13501-1 Fire Class A1

Honeycomb core's properties		50 Microns				
Aluminium Alloy series 3000	3003/3005/3103/3104					
Ø honeycomb in mm ca.	3,2	6	9	12	19	
Ø honeycomb in inches	1/8"	1/4"	3/8"	1/2"	3/4"	
Density kg/m ³	88	56 - 59	39 - 40	29 - 30	20 - 21	
Compressive stabilised strength MPa	6,5	3,0 - 3,5	1,4 - 1,95	0,8 - 0,95	0,4 - 0,6	
thickness' tolerance mm	± 0,1					
dimension's tolerance mm	± 30					
planarity* mm/m	+/-1					

Honeycomb core's properties		70 Microns				
Aluminium Alloy series 3000	3003/3005/3103/3104					
Ø honeycomb in mm ca.	3,2	6	9	12	19	
Ø honeycomb in inches	1/8"	1/4"	3/8"	1/2"	3/4"	
Density kg/m ³	123	80 - 83	54	40 - 42	27 - 29	
Compressive stabilised strength MPa	10,2	4,3 - 4,6	2,5 - 2,6	1,41 - 1,5	0,85 - 0,9	
thickness' tolerance mm	± 0,1					
dimension's tolerance mm	± 30					
planarity* mm/m	+/-1					

Standard dimensions (other dimensions available on request)



Alloy 3000/3003/3005/3103/3104 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.**

* Approximate value