



**REYNOARCH**<sup>®</sup>  
ALUMINIUM HONEYCOMB PANEL

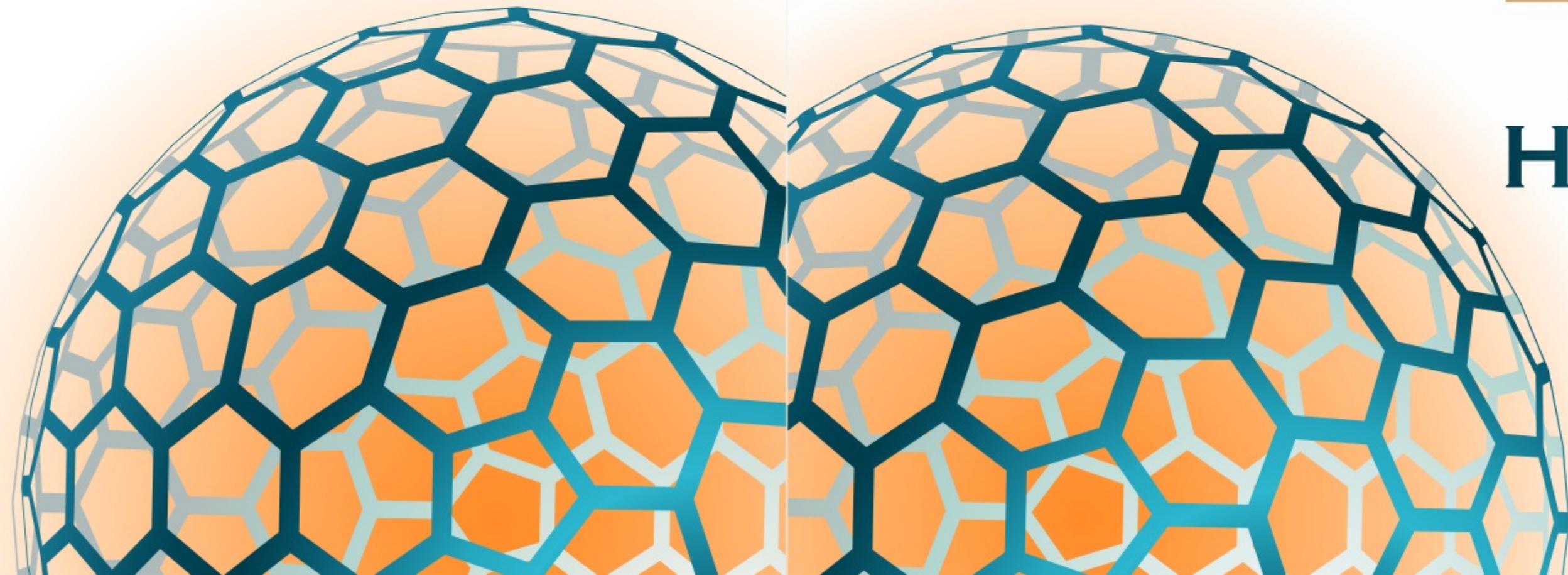
**REYNOARCH**<sup>®</sup>  
ALUMINIUM HONEYCOMB PANEL

Manufactured by  
**REYNOBOND INDIA**

**HEAD OFFICE**  
2E/7, Jhandewalan Extension, New Delhi, India-110055  
Web : [www.reynobondindia.com](http://www.reynobondindia.com) Email : [info@reynobondindia.com](mailto:info@reynobondindia.com)

**CUSTOMER CARE**  
+91 9810846953, 011-42307700

<b>BRANCHES</b>		
<b>AHMEDABAD</b> : 7428796915	<b>GUWAHATI</b> : 9289901740	<b>KOLKATA</b> : 7428697590
<b>BANGALORE</b> : 9311733237	<b>HUBLI</b> : 9311733241	<b>LUCKNOW</b> : 7428586872
<b>BHUBANESHWAR</b> : 9311622660	<b>HYDERABAD</b> : 9311733236	<b>NOIDA</b> : 9311811653
<b>CHENNAI</b> : 9311733233	<b>INDORE</b> : 9311811650	<b>PATNA</b> : 9311622662
<b>DELHI</b> : 7428796919	<b>JAIPUR</b> : 9205666843	<b>PUNE</b> : 9370016616
<b>GURGAON</b> : 7042296755	<b>KOCHI</b> : 9311733248	<b>RANCHI</b> : 9006416500



UNLEASHING THE POWER OF

# ALUMINIUM HONEYCOMB PANEL







## About

We bring you the best-in-class Aluminium Honeycomb Panels from the house of innovations. REYNOBOND INDIA serve you with out-of-the-box durability and resilience, with outstanding peel strength and toughness. Contrary to other Honeycomb Panels, it will never become stiff or fragile. With a high tensile force on the covers sheets, gorgeous aesthetics and features, and excellent processing properties, Reynoarch Aluminium Honeycomb Panels have become the favourite of Architects, Planners, and Designers.

Reynoarch is India's most trusted ACP manufacturer brand. Experience the magic of Aluminium Honeycomb Panels. Reynoarch Aluminium Honeycomb Panels are made with system components continuously bonded for increased strength.

Reynoarch's Aluminium Honeycomb Panels are extremely resilient and tough. They also have exceptional peel strength and toughness. Reynoarch Honeycomb Aluminum Panels are a favourite of architects, planners, and designers. They have high tensile strength, great aesthetic features, and exceptional processing qualities.



## Why Reynoarch Aluminium Honeycomb Panel

### Features



Fire Retardant



Lightweight



High Efficiency



100% Recyclable & Reusable



Easy to Install

The panel is non-combustible and not flammable. It has a fire rating FR Grade A2. The honeycomb sheet is hexagonal in design and prevents the rapid spread of fire.

The Honeycomb Panel has a hollow core with which the aluminium skin is connected. Because of its low density, the panel is lightweight and ideal for metro coaches, and other uses including facade application.

The Honeycomb core is hexagonal and connects to the aluminium skin at the top and bottom, creating an I-beam structure. This makes the panel strong and resistant to high-impact stress.

The Aluminium Honeycomb Panels alloy is 100% recyclable and reusable.

The lightweight and thin panels can be used as wall panels or for other applications. They are attached with rivets and nuts.

Due to the unique structure, where the core looks like an I-beam structure supports the skin of the panel. The panel has higher compression strength, compared to other sandwich cores.

The honeycomb panels consist of a honeycomb board, which has high impact resistance and wear resistance, benefits enhancing the structural strength of the building.

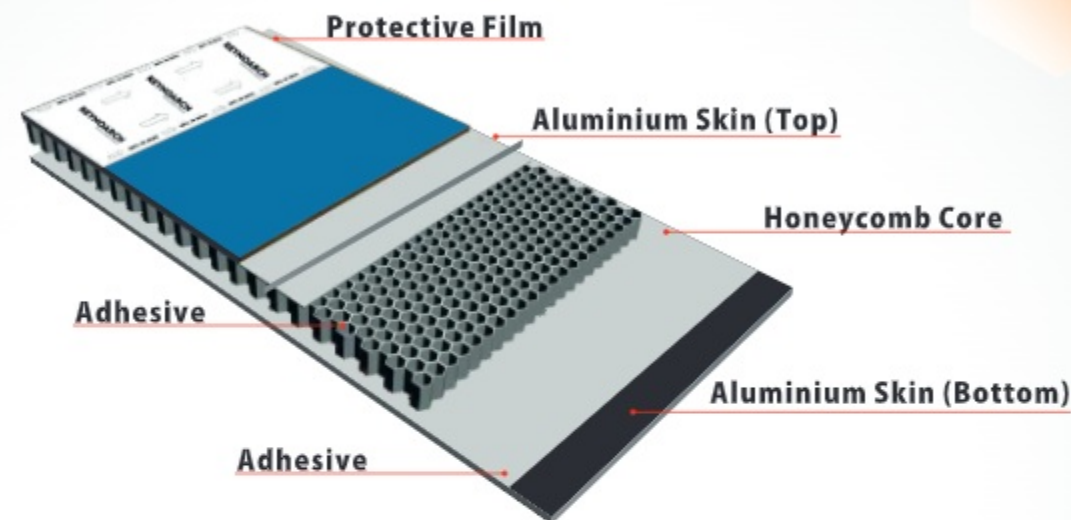
We can also provide ready made panel for factory for instant installation, which save lot of time.





**REYNOARCH<sup>®</sup>**  
ALUMINIUM HONEYCOMB PANEL

03



## Lightweight solutions for Building and Industry



**REYNOARCH<sup>®</sup>**  
ALUMINIUM HONEYCOMB PANEL

04

### NEW GENERATION OF ADVANCED MATERIALS FOR BUILDING AND INDUSTRY

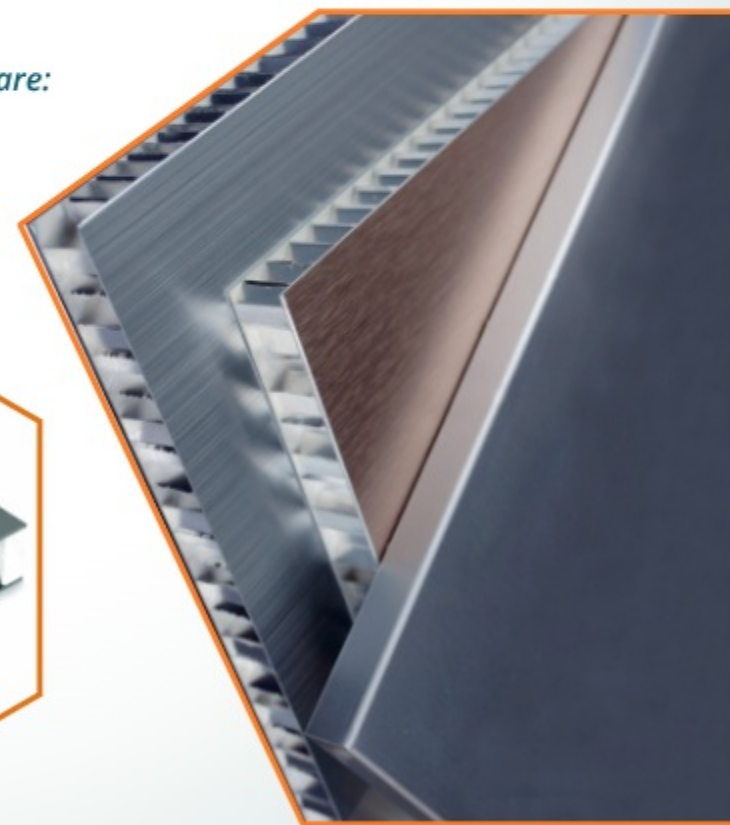
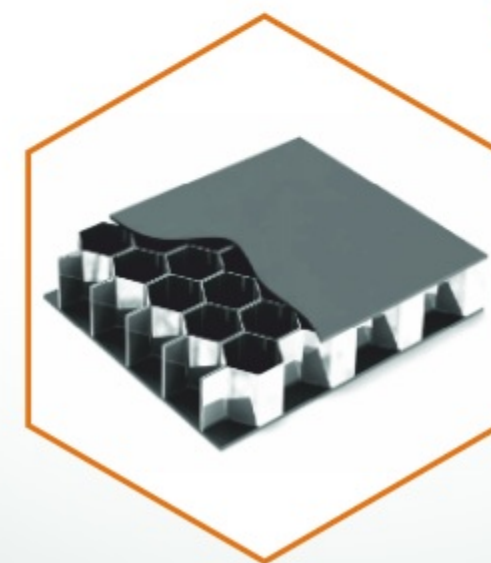
Reynoarch<sup>®</sup> is a panel formed by two aluminium skins bonded to an aluminium honeycomb core, forming a final structure with ideal properties for facade applications. It is made of aluminium, an fully recyclable metal.

The continuous production process allows the achievement of big panel dimensions with stable and uniform values of adherence, flatness and resistance which are essential properties to use the Reynoarch<sup>®</sup> panel in many different applications.

### HONEYCOMB TECHNOLOGY

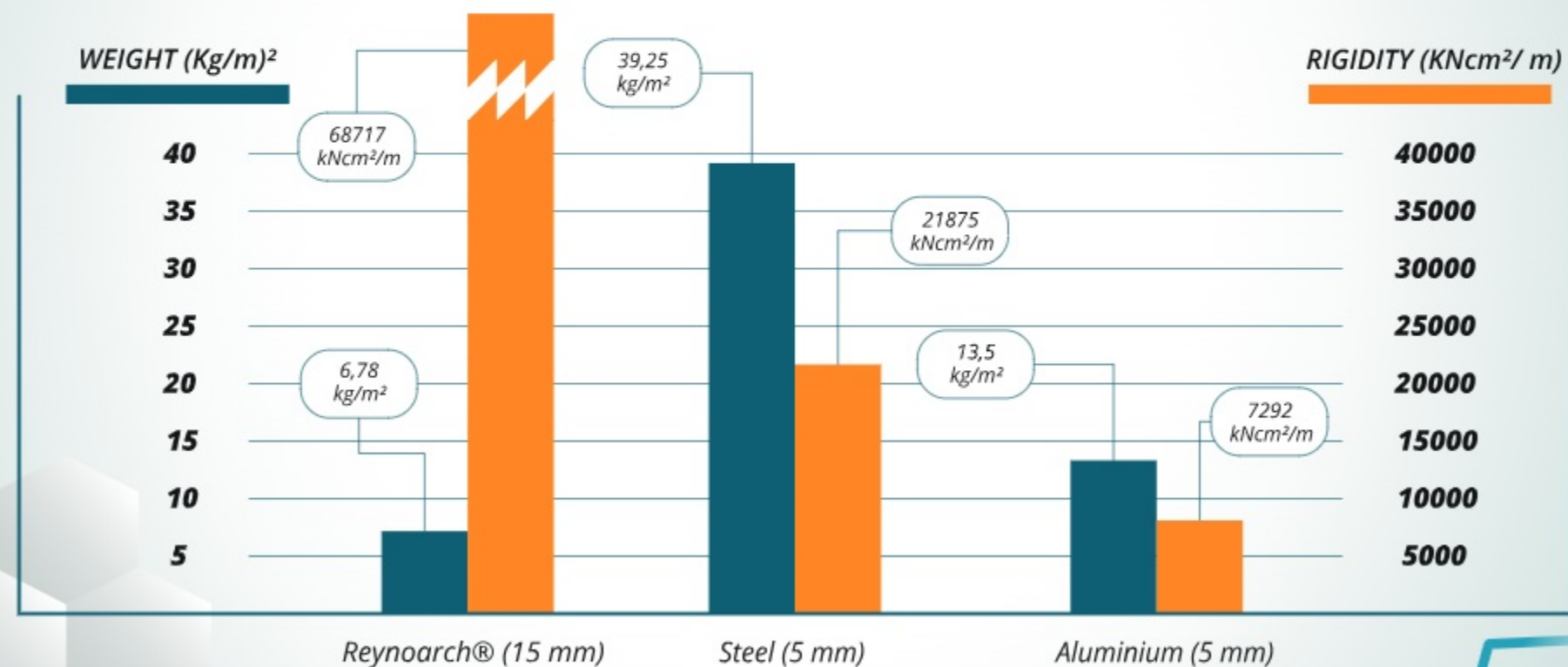
The main properties of the Reynoarch<sup>®</sup> Aluminium Honeycomb panels are:

- High rigidity
- Lightness
- Flatness
- Compressive strength
- Easy machining
- Strong material
- AHP hexagonal material
- Light but strong
- Good behavior to fire and smoke





## Comparative Table: Honeycomb VS Steel VS Aluminium



## 12MM PANEL SOUND TRANSMISSION: Sound Absorption Coefficients of Aluminium Honeycomb Panel

1/3 Octave Frequency(Hz)	Sound absorption coefficient, $\alpha_s$ Type A mounting Honeycomb Panel
100	0.03 ± 0.00
125	0.01 ± 0.00
160	0.01 ± 0.00
200	0.01 ± 0.00
250	0.01 ± 0.00
315	0.02 ± 0.00
400	0.03 ± 0.00
500	0.06 ± 0.00
630	0.10 ± 0.01
800	0.15 ± 0.01
1000	0.13 ± 0.01
1250	0.11 ± 0.01
1600	0.09 ± 0.00
2000	0.05 ± 0.00
2500	0.04 ± 0.00
3150	0.02 ± 0.00
4000	0.01 ± 0.00
5000	0.02 ± 0.00
Noise Reduction Coefficient, NRC	0.06
Sound Absorption Average, SAA	0.07





## Aluminium Fire Resistant A2 Grade

Reynoarch Aluminium Honeycomb Panels it self offer good fire resistance performance which meet A2 grade.

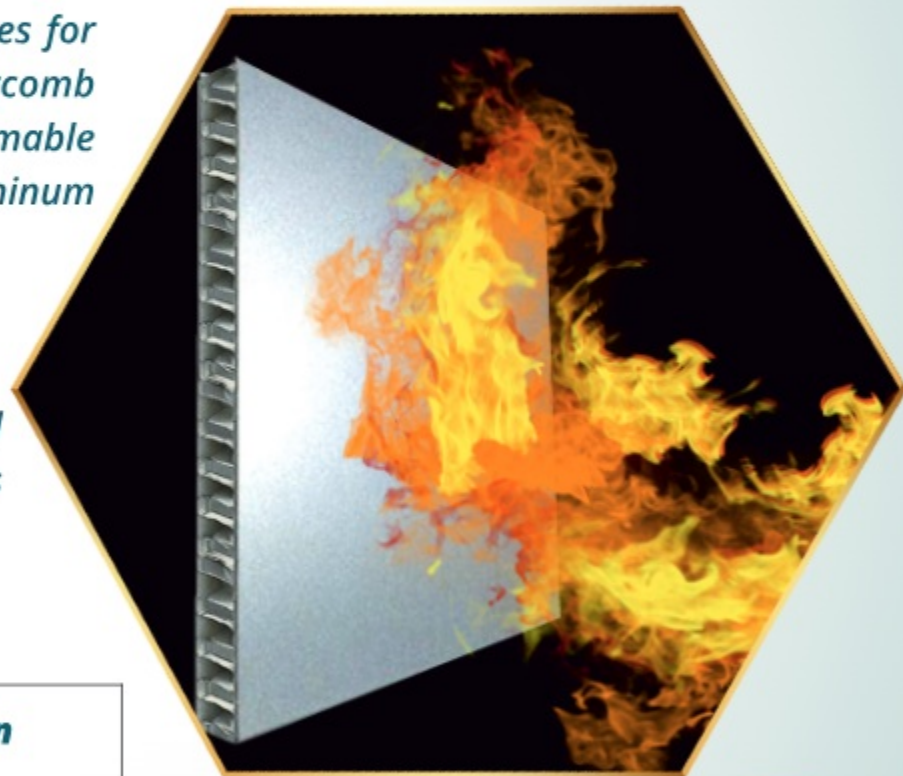
Tested by National Research Centre of Testing Techniques for Building Materials, the property of Aluminum Honeycomb Composite Panels meet the requirement of non-flammable materials. According to GB-8624-1997 standard, the aluminum honeycomb panels fireproofing grade is GB-8624-B1.

### Fire Protection

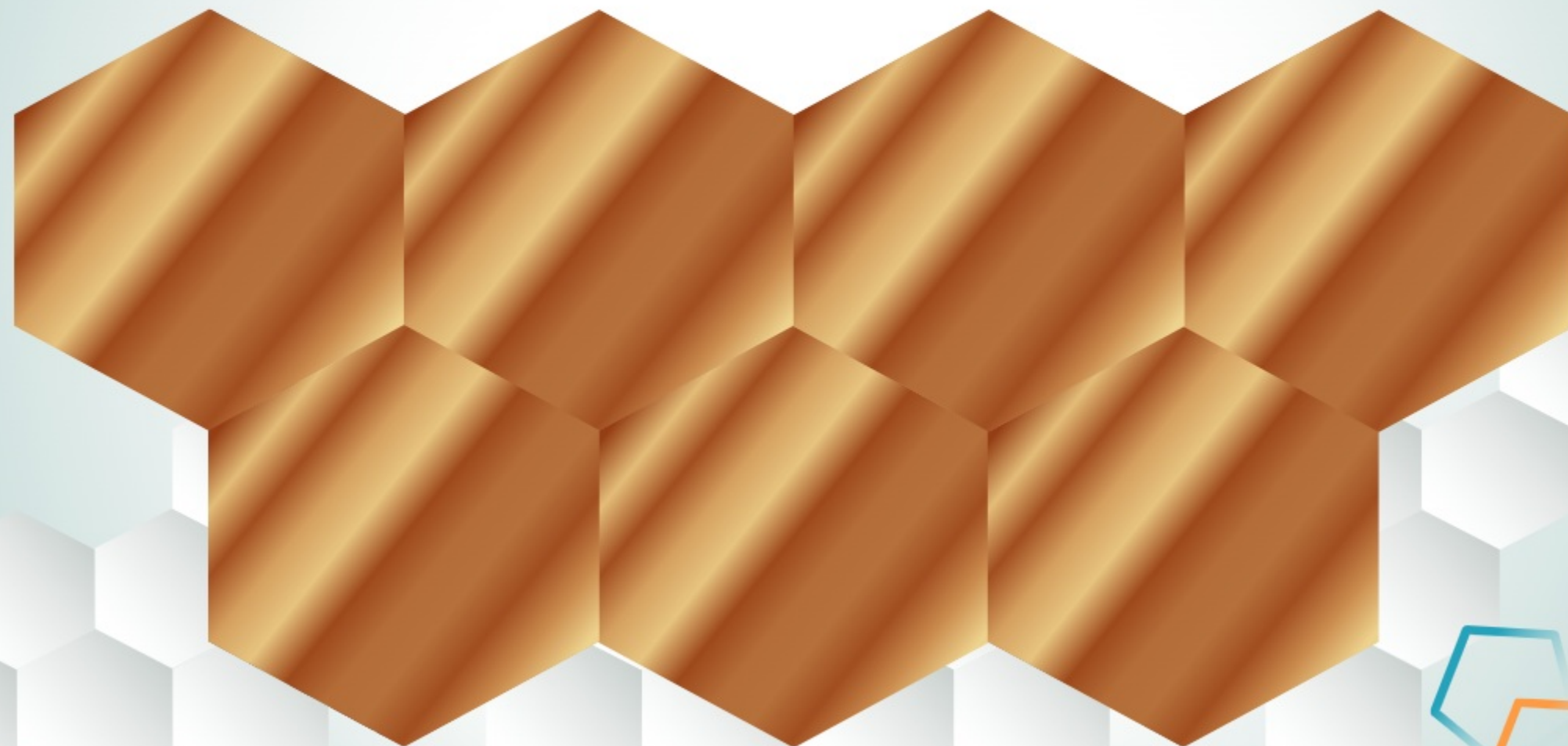
Reynoarch Aluminium Honeycomb Panels has replaced LDPE core with non-combustible core which prevents from spread of fire.

### Fire Classification

Country	Country Test accord. to	Classification
EU	EN 13501-1	Class B-s1, d0 Class A2-s1, d0



## Applications







Green Product



Water & Fungus Proof



Wide Range of Colours



Termite Resistant



UV Resistant



Easy to Install



Light Weight



Easy to Fabricate

### Applications

- Wall Cladding
- Pergola
- Bedroom
- Outdoor Cladding
- Fences
- Toilet Door & Partition
- Ceiling
- Louvers
- Cleanroom for walls
- Canopy
- Interia

### Panel Dimensions

Width	1220mm
Length	2400mm or as per required till 5000mm
Top	0.7mm & 0.5mm
Bottom	- 0.5mm

Customized Shade are available subjected to the approval, quantity and lead time.

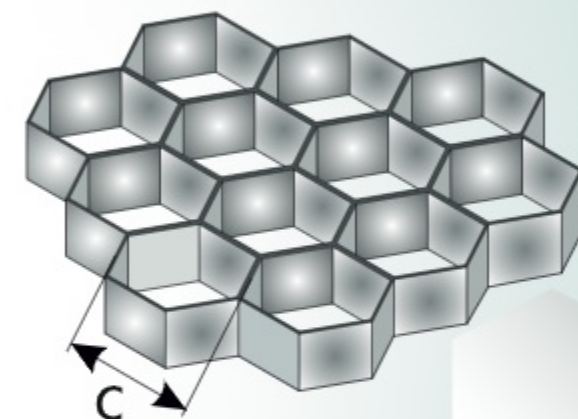


### AHP Panel Specification

Total thickness "b" (mm)	5,5±0,2	6±0,2	10±0,2	15±0,2	20±0,2	25±0,2	30±0,2	40±0,2
External sheet thickness "e1" (mm)	0,5	1,0	1,0	1,0	1,0	1,0	1,0	1,0
Internal sheet thickness "e2" (mm)	0,5	0,5	0,5	1,0	1,0	1,0	1,0	1,0
Weight (kg/m <sup>2</sup> )	3,62	4,97	5,19	6,78	7,05	7,32	7,59	8,13
Rigidity (EI) (KNcm <sup>2</sup> /m)	3727	5519	22169	69964	143868	249289	347169	584560
Moment of inertia (I) (cm <sup>4</sup> /m)	0,53	0,79	3,16	9,99	20,55	35,61	49,60	83,51
Section modulus (w) (cm <sup>3</sup> /m)	2,39	2,63	4,92	13,32	20,55	28,49	33,06	41,75
Acoustic isolation (R <sub>a</sub> ) (dBa)	19,5	19,6	20,3	21,18	22,16	23,21	24,3	26,15
Thermal resistance (R) (m <sup>2</sup> K/W)	0,0065	0,0063	0,0074	0,0084	0,0089	0,0093	0,0099	0,011

### Aluminium Honeycomb Panels

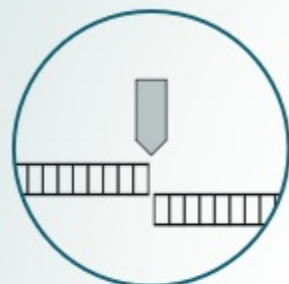
Sr. No.	Description		Properties
1	Cover sheet	a	Thickness 12mm/25mm
2	Honey Comb	a	Thickness 23.8mm/ 11mm/ 10.8mm
		b	Cell Size 12mm & 20mm
		c	Foil Thickness 0.05mm/ 0.07mm
		d	Alloy 3000
3	Total Panel Thickness		12mm/25mm
4	Panel Dimensions	a	Width 1220mm
		b	Length 2440 ( or Customize)
5	Coating		PVDF
6	Top Skin		0.7mm/ 0.50 mm
7	Bottom Skin		0.5 mm



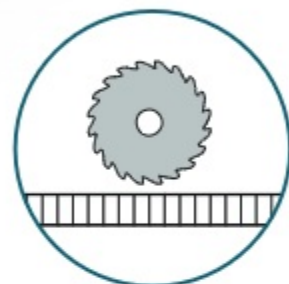




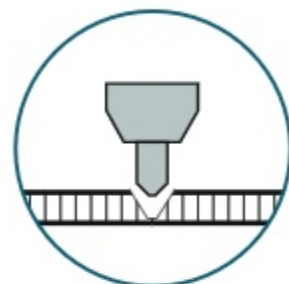
**WHAT CAN WE DO WITH AHP**



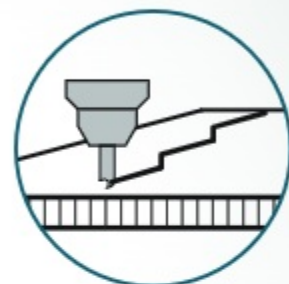
SECTION CUTTERS



SAW CUT



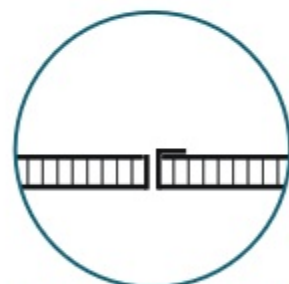
ROUTING



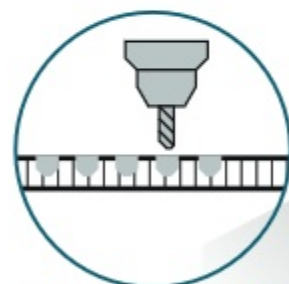
SHAPING CUT



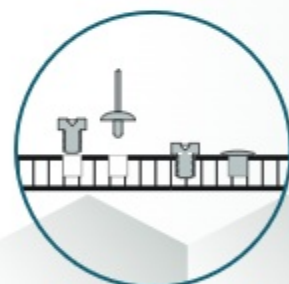
FOLDING/FORMING



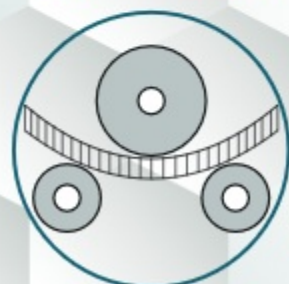
SIMPLE/DOUBLE EDGING



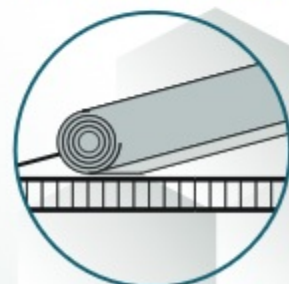
DRILLED/PERFORATED



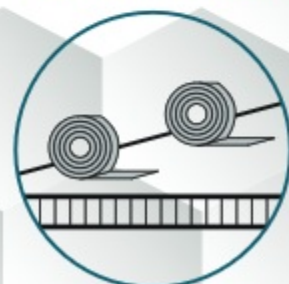
SCREWED/RIVETED



CURVED



LAMINATED



GLUED



PRINTING



**Technical Data**

The density of the honeycomb depends on the thickness of the foil and the diameter of the cells.

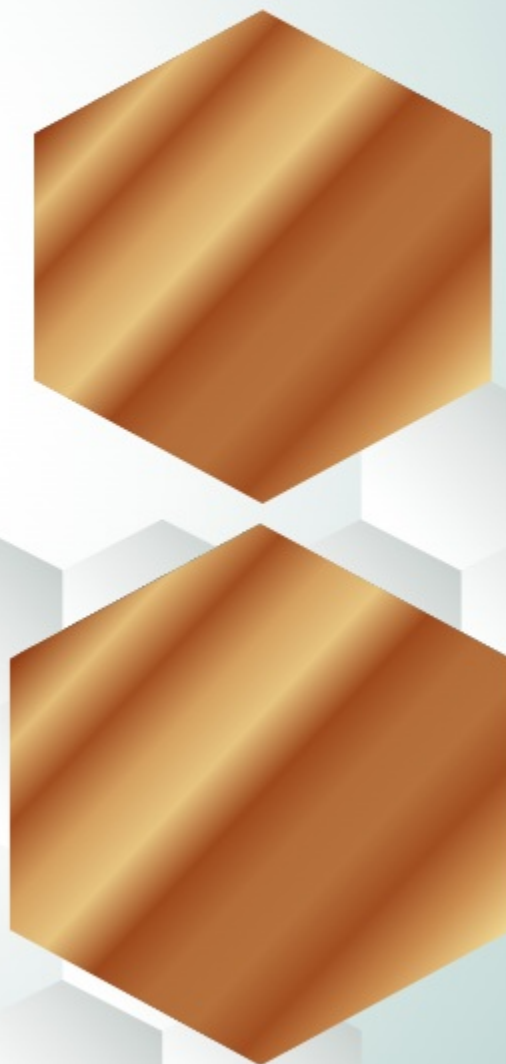
**CERTIFICATE FOR CONSTRUCTION INDUSTRY**

**Honeycomb core's properties 50 Microns**

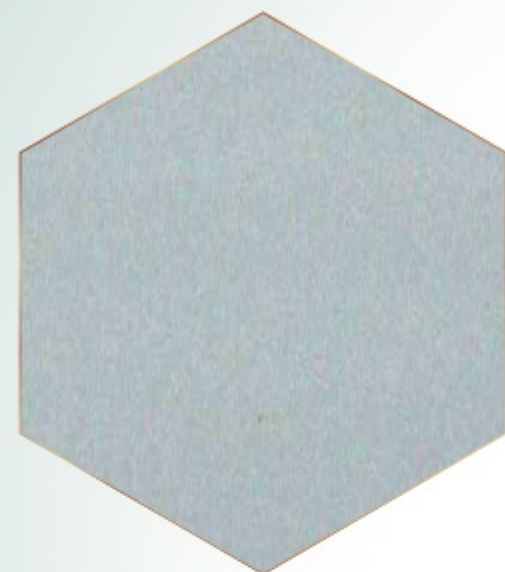
Aluminium Alloy Series 3000	3003/3005/3103/3104				
Ø Honeycomb in mm ca.	3.8	6	9	12	19
Ø Honeycomb in inches	1/8"	1/4"	3/8"	1/2"	3/4"
Density kg/m <sup>3</sup>	112	56-59	39-40	29-30	20-21
Compressive stabilised strength MPa	6.8	3.0-3.5	1.4-1.95	0.8-0.95	0.4-0.6
Thickness' tolerance mm	±0.1(± 0.05 on request)				
Dimension's tolerance mm	±30				
Maximum use temperature mm	180°				

**Honeycomb core's properties 70 Microns**

Aluminium Alloy Series 3000	3003/3005/3103/3104				
Ø Honeycomb in mm ca.	3.8	6	9	12	19
Ø Honeycomb in inches	1/8"	1/4"	3/8"	1/2"	3/4"
Density kg/m <sup>3</sup>	123	80-83	54	40-42	27-29
Compressive stabilised strength MPa	7.7	4.3-4.6	2.5-2.6	1.41-1.5	0.85-0.9
Thickness' tolerance mm	±0.1(± 0.05 on request)				
Dimension's tolerance mm	±30				
Maximum use temperature mm	180°				



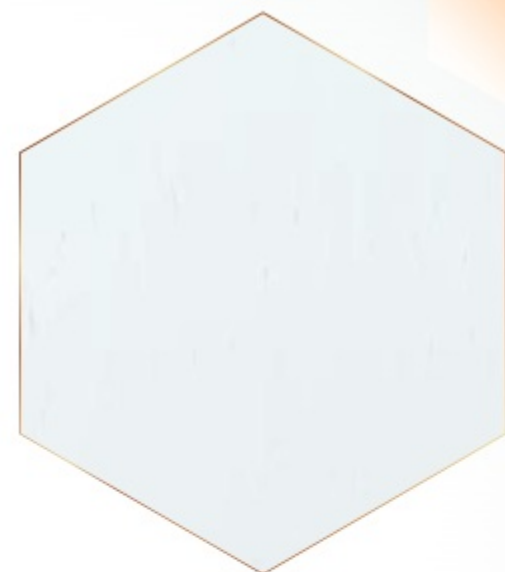




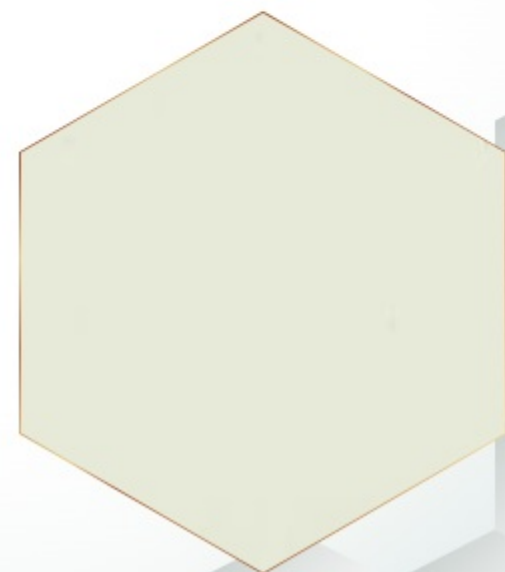
*RA-04 Bright Silver*



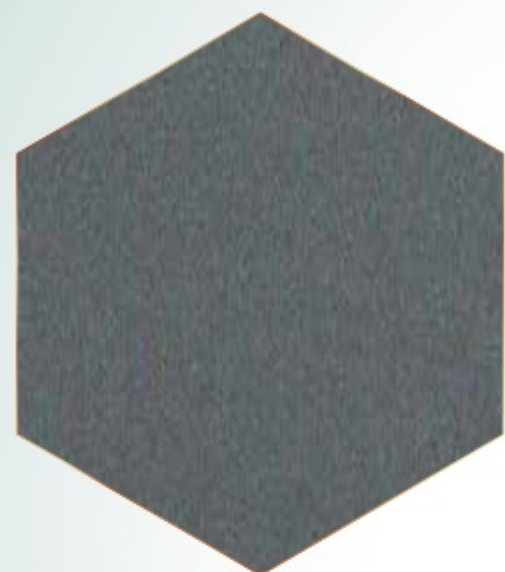
*RA-08 Bright White*



*RA-06 Champagne Gold*



*RA-10 Ivory White*



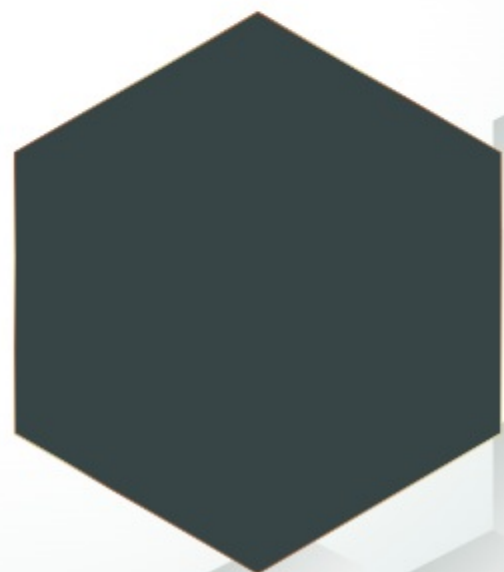
*RA-14 Black Silver*



*RA-20 Metallic Bronze*



*RA-15 Copper Metallic*



*RA-44 Dark Grey*