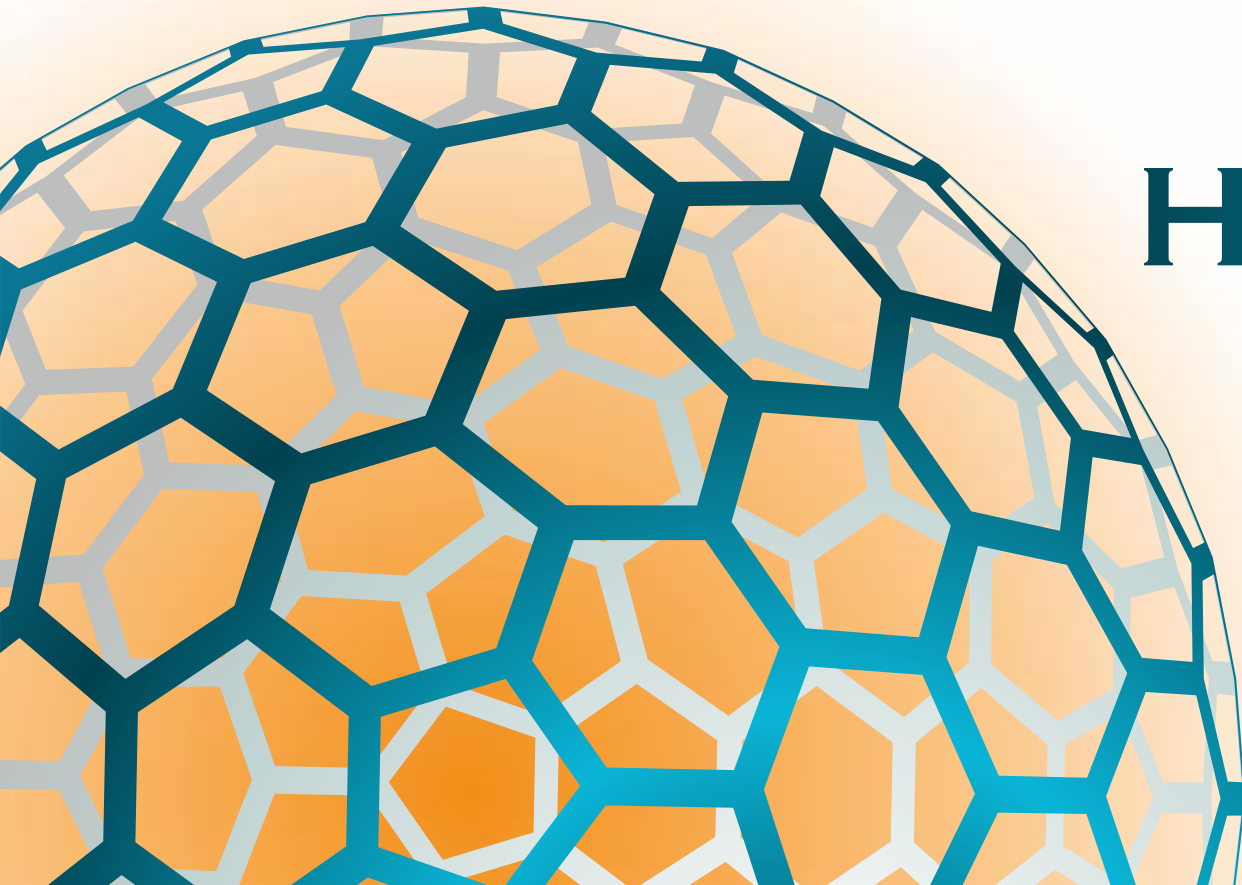


UNLEASHING THE POWER OF
**ALUMINIUM
HONEYCOMB
PANEL**





REYNOARCH[®]
ALUMINIUM HONEYCOMB PANEL

01

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 Aluminum 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.





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Why Reynoarch Aluminium Honeycomb Panel

02

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.

Features



Fire Retardant



Lightweight



High Efficiency



100% Recyclable
& Reusable

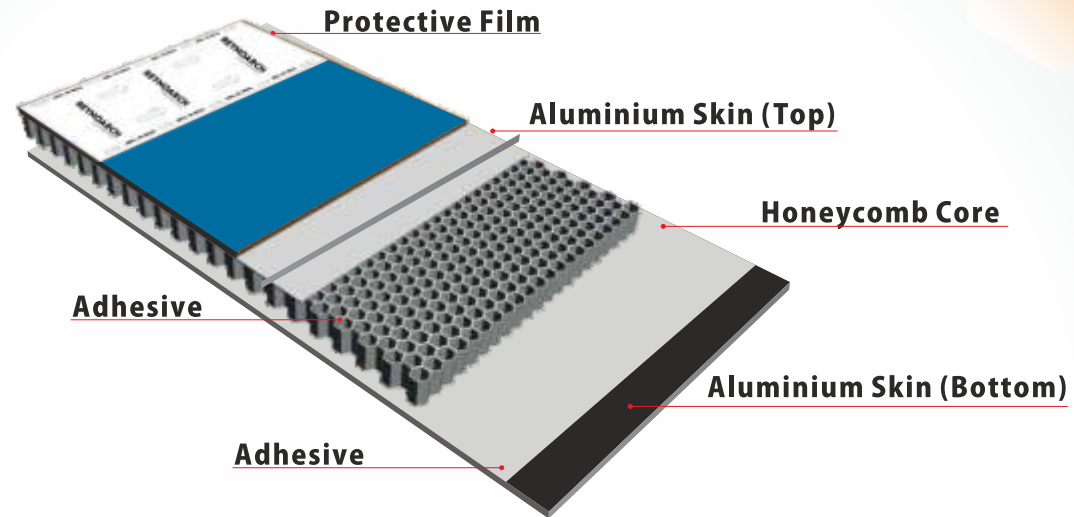


Easy to Install



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ALUMINIUM HONEYCOMB PANEL

03



Lightweight solutions for Building and Industry





NEW GENERATION OF ADVANCED MATERIALS FOR BUILDING AND INDUSTRY

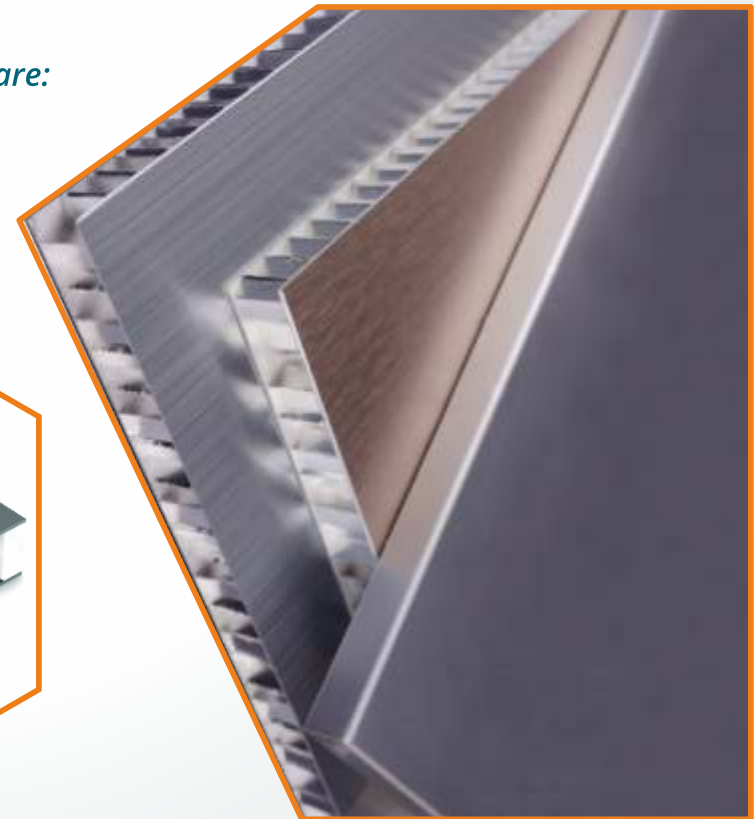
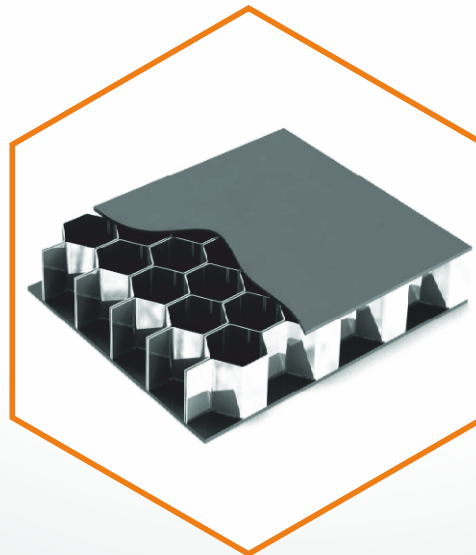
Reynoarch[®] is a panel formed by two aluminium skins bonded to an aluminium honeycomb core, forming a final structure with ideal properties for facade applications. It is made of aluminium, an fully recyclable metal.

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[®] panel in many different applications.

HONEYCOMB TECHNOLOGY

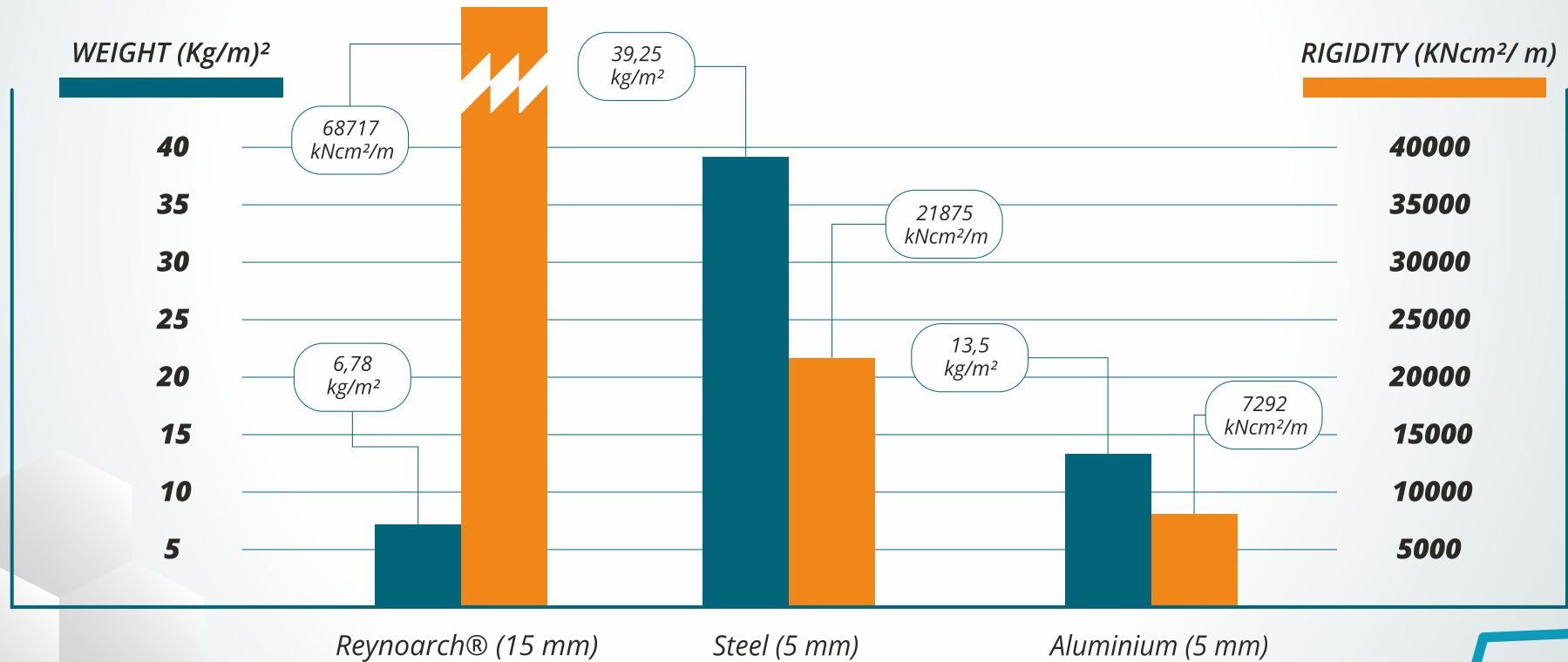
The main properties of the Reynoarch[®] Aluminium Honeycomb panels are:

- 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, α_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.

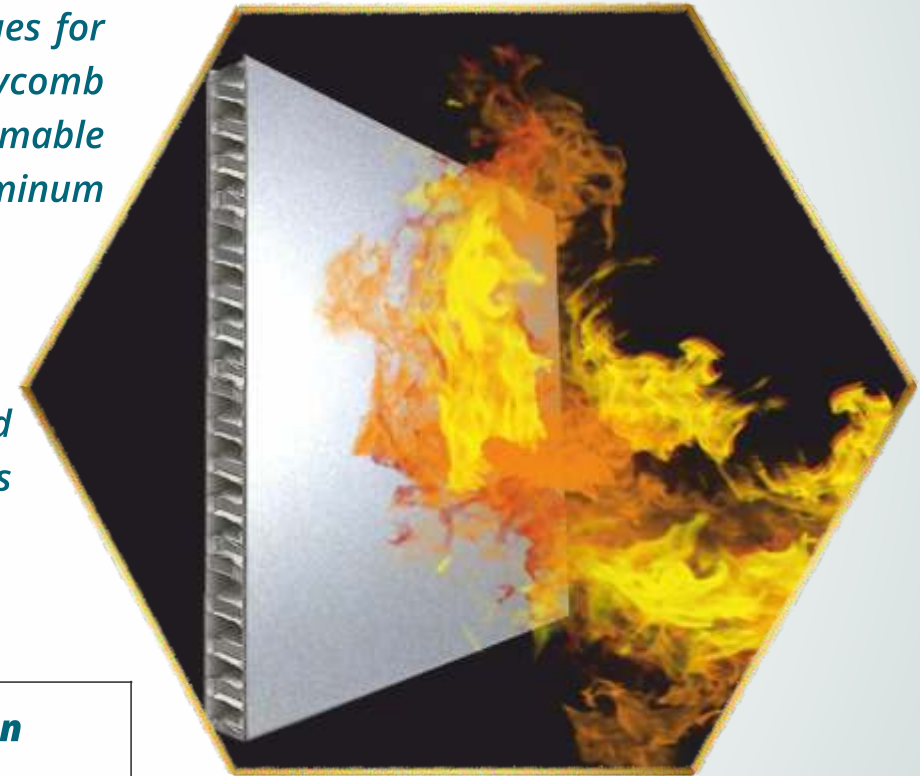
Tested by National Research Centre of Testing Techniques for Building Materials, the property of Aluminum Honeycomb Composite Panels meet the requirement of non-flammable materials. According to GB-8624-1997 standard, the aluminum honeycomb panels fireproofing grade is GB-8624-B1.

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





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08

Applications





REYNOARCH[®]

ALUMINIUM HONEYCOMB PANEL

09



Green Product



Water & Fungus Proof



Wide Range of Colours



Termite Resistant



UV Resistant



Easy to Install



Light Weight



Easy to Fabricate

Applications

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

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.





REYNOARCH[®]

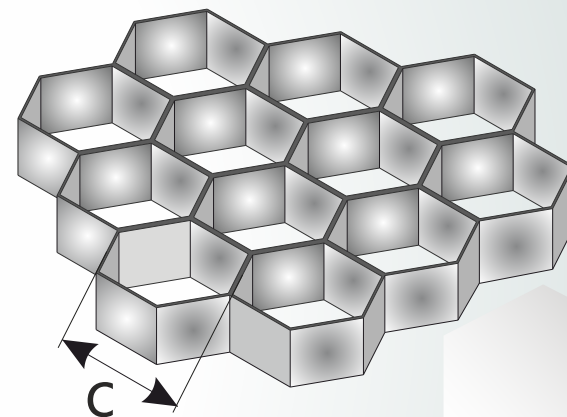
ALUMINIUM HONEYCOMB PANEL

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

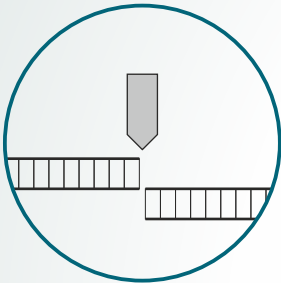
Aluminium Honeycomb Panels

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

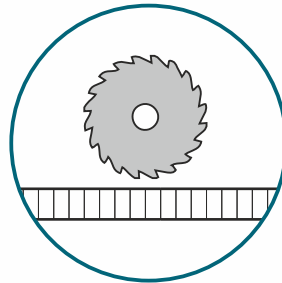




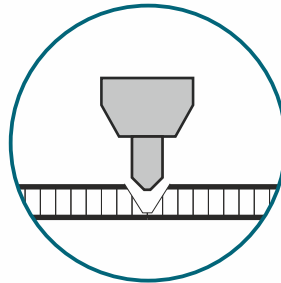
WHAT CAN WE DO WITH AHP



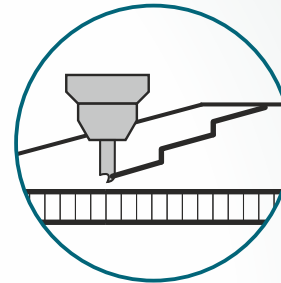
SECTION CUTTERS



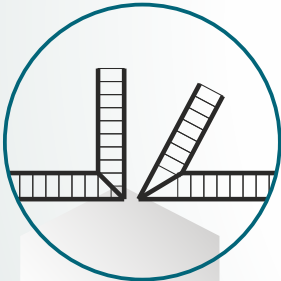
SAW CUT



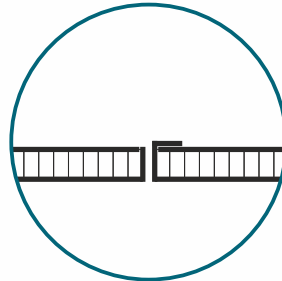
ROUTING



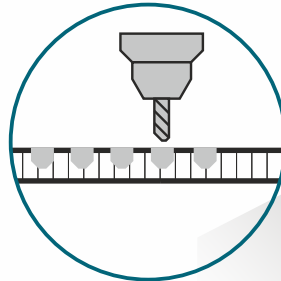
SHAPING CUT



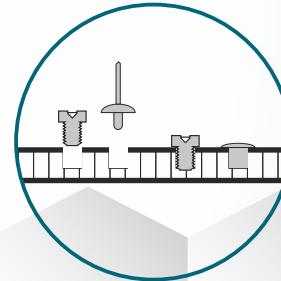
FOLDING/FORMING



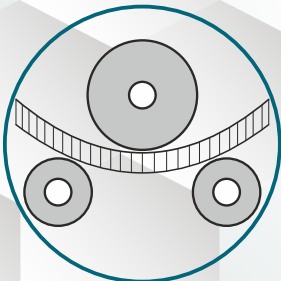
SIMPLE/DOUBLE EDGING



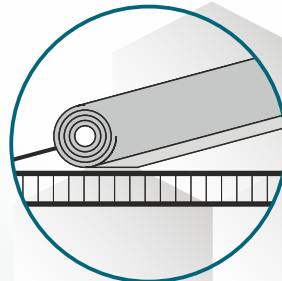
DRILLED/PERFORATED



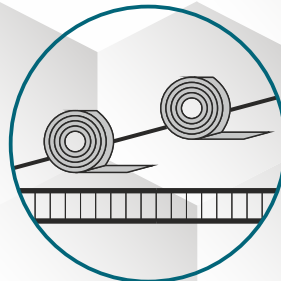
SCREWED/RIVETED



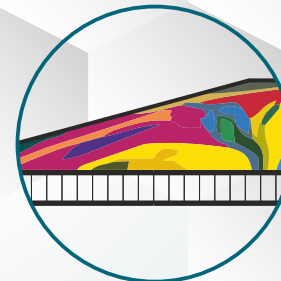
CURVED



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/m³

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/m³

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°



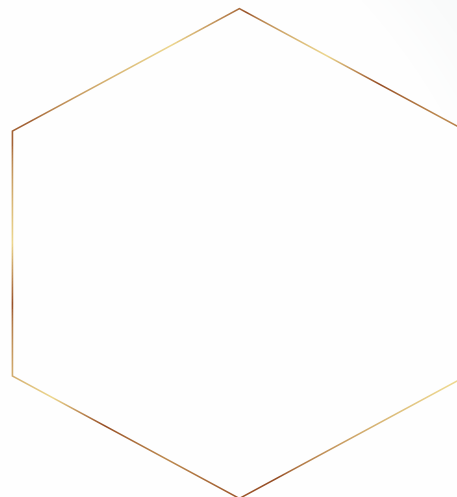


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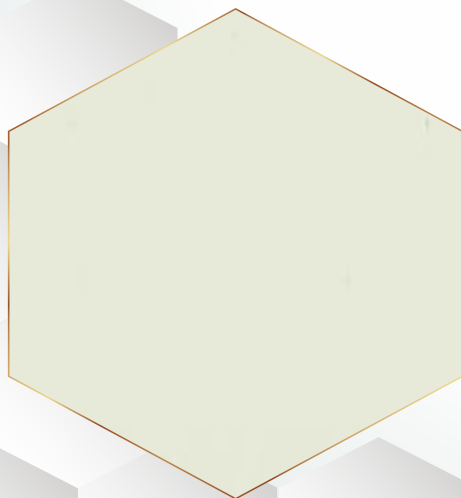
Shades



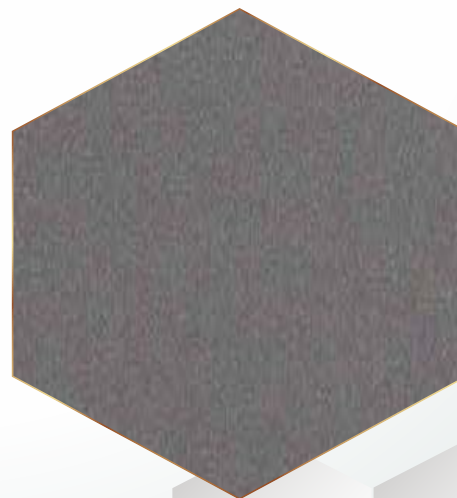
RA-04 Right Silver



RA-47 Pure White



RA-10 Ivory White



RA-14 Black Silver



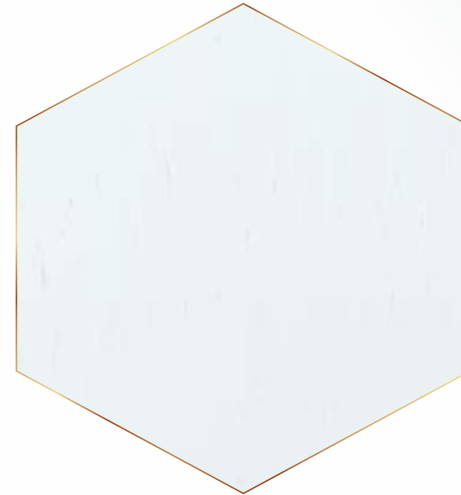


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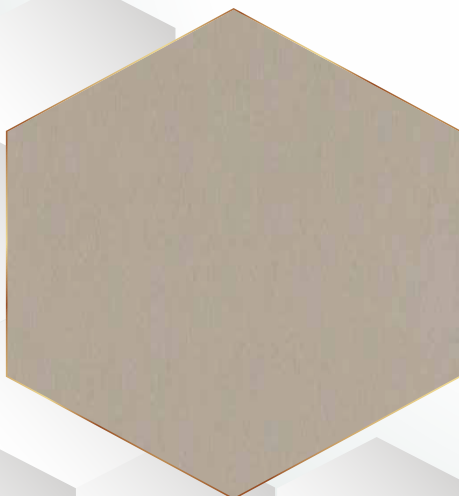
Shades



RA-15 Copper Metallic



RA-08 Bright White



RA-20 Metallic Bronze



RA-44 Dark Grey





REYNOARCH[®]
ALUMINIUM HONEYCOMB PANEL



Reynoarch Honeycomb Fire Doors

Reynoarch Honeycomb Fire Doors – Built to Protect, Designed to Last

Reynoarch Honeycomb fire doors are engineered to withstand fire exposure for 2 hours + time. It is tested with EN 13501-1 and is classified as A2-SI class. Our Honeycomb doors allow essential time for safe evacuation.

Robust Construction for Maximum Protection:

Manufactured in accordance with GB - 8624 -1997 standard, Reynoarch Honeycomb composite door is classified in fireproofing grade GB - 8624 - B1. Each Door of Reynoarch is a powerhouse of durability & safety. Constructed using Honeycomb of Aluminium as core covered with Aluminium skin on both sides coated with PVDF layer.

Pre-engineering at plant and Honeycomb door technology ensures precise hardware integration for smooth installation & optional functionality.





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ALUMINIUM HONEYCOMB PANEL

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Fire Door Specifications

<i>Door Thickness</i>	<i>30 mm, 35 mm, 40 mm</i>
<i>Infill</i>	<i>Aluminium Honeycomb</i>
<i>Door Leaf</i>	<i>PVDF Coated 0.5mm Aluminium Skin</i>

Fire Door Hardware

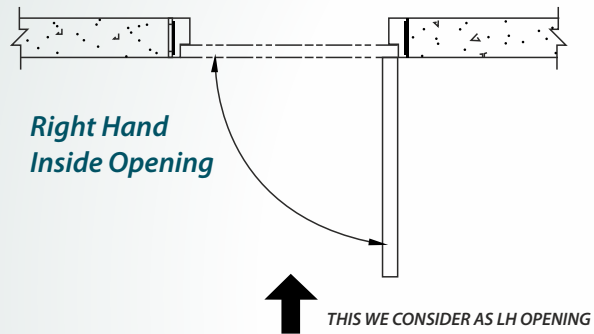
<i>Panic Bar</i>	<i>Kick Plate</i>
<i>Mortise Dead Lock</i>	<i>Door Stopper</i>
<i>SS But Hinges</i>	<i>Push Plate</i>
<i>Door Closer</i>	<i>Heavy Duty Fire Rated</i>
<i>Smoke Seal</i>	<i>Door Coordinator</i>



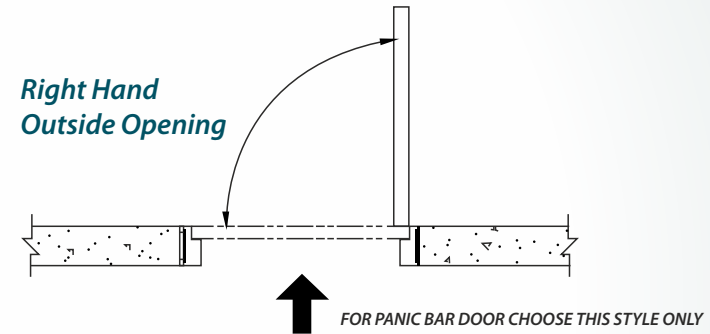


Hinge Door Opening Style Drawing

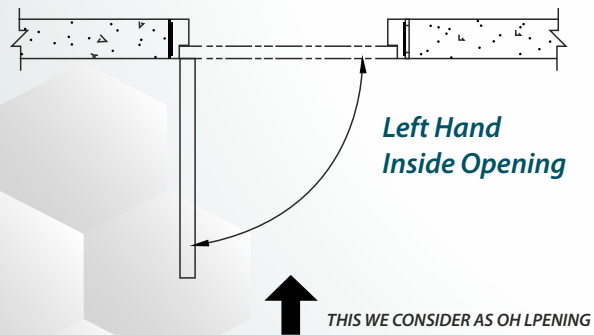
Door Opening Style - (A)



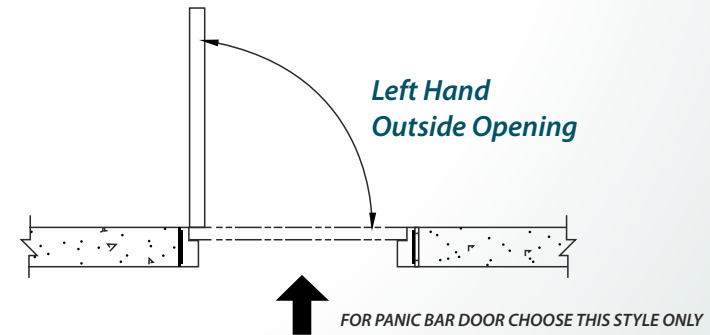
Door Opening Style - (B)



Door Opening Style - (C)



Door Opening Style - (D)



ARROW INDICATES PUSH SIDE





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ALUMINIUM HONEYCOMB PANEL

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Reynoarch Honeycomb Baffle for Ceiling & Facade Systems

Advantages of Honeycomb Baffle for Facade & Ceiling Systems

Customizable : When applied to ceiling or facade systems, HCP gives greater freedom to mould it any way one sees it.

Better Acoustics : Our HCP enhanced ceiling & facade systems are having very good acoustics properties.

Weather Resistant : As these are HCP made, these ceiling & facade systems are far more resistant to a plethora of weather phenomena like humidity, moisture, and also UV resistant.

Eco-Friendly : HCP materials are made to be 100% recyclable.

Durability: Its in the nature of HCP to be durable as it is metal making it resistant against corrosion and also having lower thermal expansion coefficient.

Low Maintenance : it's versatility in weather conditions as well as the superior coating or painting requirements, makes our HCP ceiling & facade system easy to maintain.

Lighting Integration : One of the most beneficial features of our HCP ceiling & facade system is the multi chambered core that allows for various lighting integration.

Loading of Other Elements : Carrying on with its capacity to integrate, HCP ceiling & facade system gives space to assimilate: sprinklers, signage, alarms and decorative lights.



REYNOARCH[®]

ALUMINIUM HONEYCOMB PANEL

Manufactured by
REYNOBOND INDIA

HEAD OFFICE

2E/7, Jhandewalan Extension, New Delhi, India-110055
Web : www.reynobondindia.com Email : info@reynobondindia.com

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+91 9810846953, 011-42307700

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CHENNAI : 9311733233
DELHI : 7428796919
GURUGRAM : 9319088569
GUWAHATI : 9289901740

HYDERABAD : 9311733236
HUBLI : 9311733241
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JAIPUR : 7428090125
KOCHI : 9311733248
KOLKATA : 7428697590
LUCKNOW : 7428586872

NOIDA : 9311811653
PATNA : 9311622662
PUNE : 9370016616
RAIPUR : 9319088575
RANCHI : 9006416500

