

UNLEASHING THE POWER OF

ALUMINIUM HONEYCOMB PANEL





REYNOBOND[®]
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, Reynobond Aluminium Honeycomb Panels have become the favourite of Architects, Planners, and Designers.

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

Reynobond's Aluminium Honeycomb Panels are extremely resilient and tough. They also have exceptional peel strength and toughness. Reynobond 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 Reynobond 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 Retardent



Lightweight



High Efficiency



100% Recyclable
& Reusable

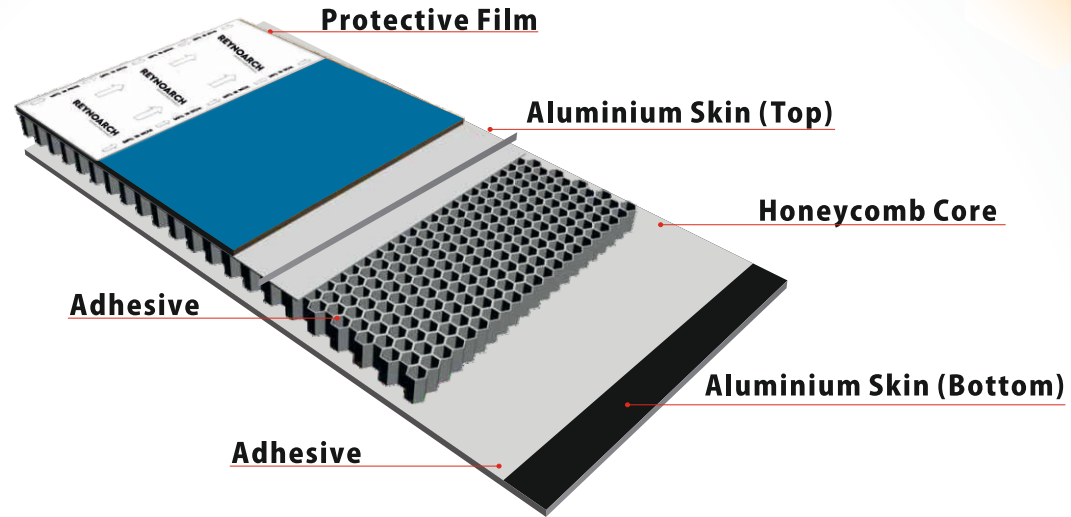


Easy to Install



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03



Lightweight solutions for Building and Industry





NEW GENERATION OF ADVANCED MATERIALS FOR BUILDING AND INDUSTRY

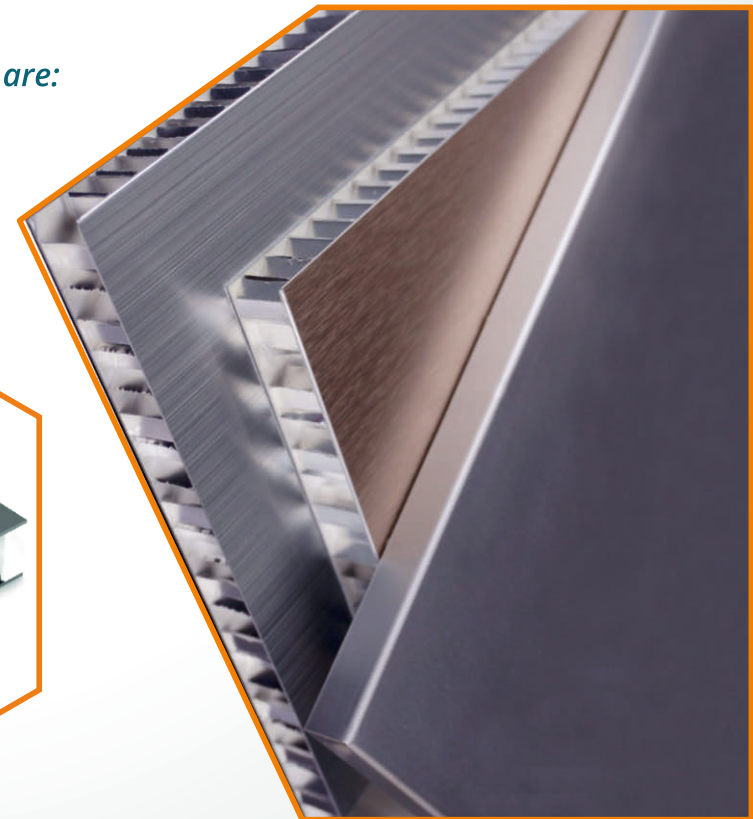
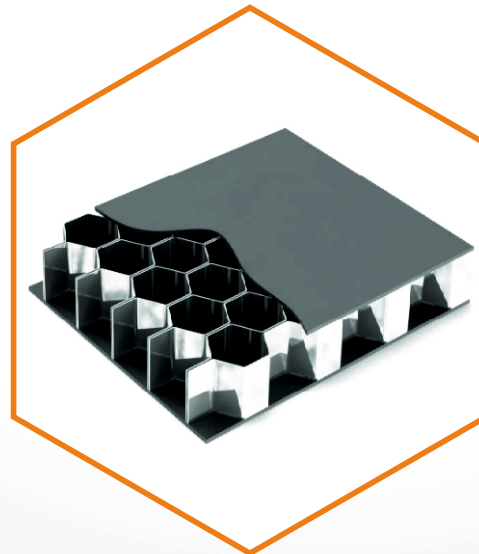
Reynobond[®] is a panel formed by two aluminium skins bonded to an aluminium honeycomb core, forming a final structure with ideal properties for facade applications. It is made of aluminium, an fully recyclable metal.

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 Reynobond[®] panel in many different applications.

HONEYCOMB TECHNOLOGY

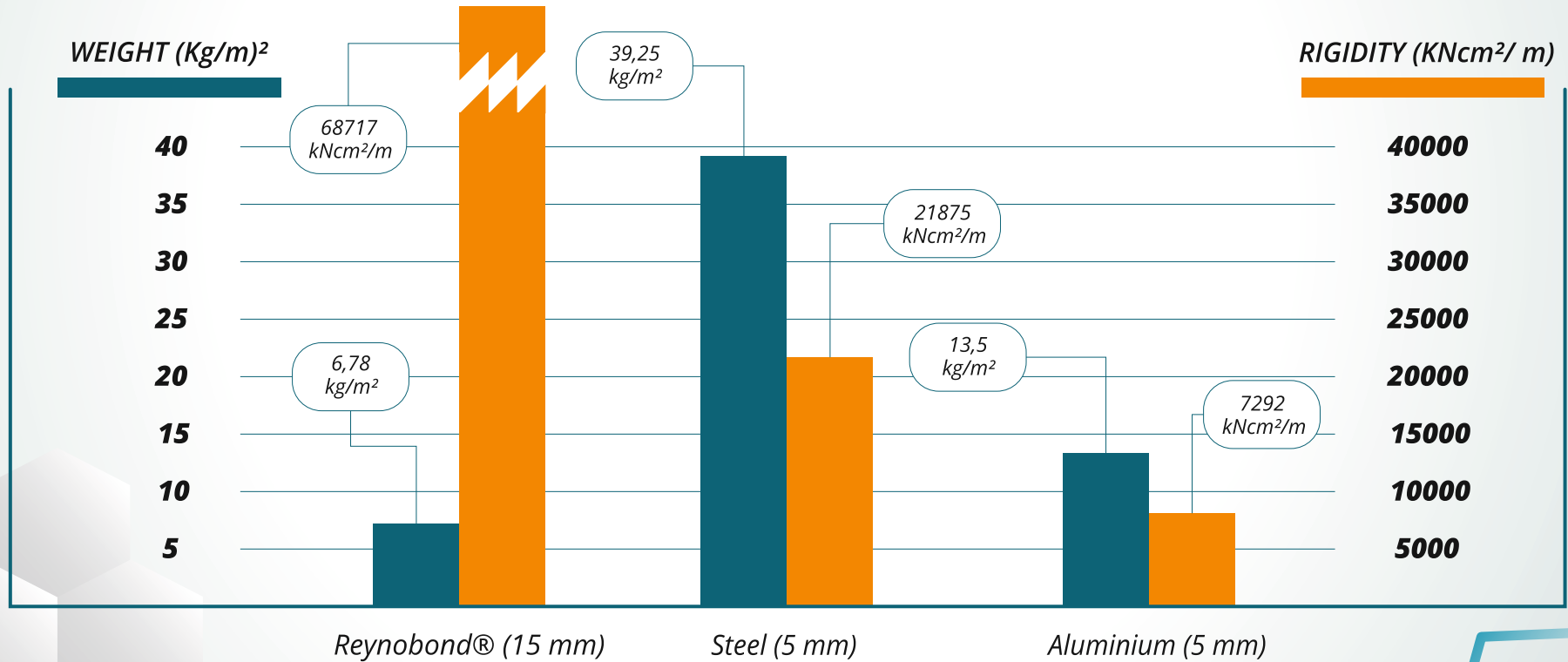
The main properties of the Reynobond[®] Aluminium Honeycomb panels are:

- 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

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

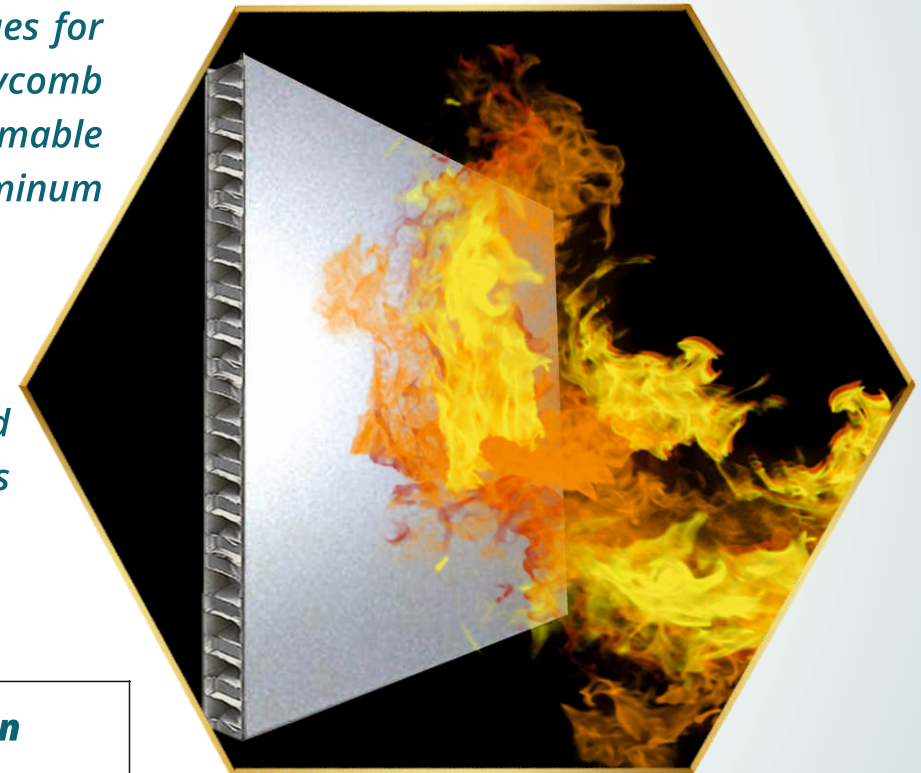
Tested by National Research Centre of Testing Techniques for Building Materials, the property of Aluminum Honeycomb Composite Panels meet the requirement of non-flammable materials. According to GB-8624-1997 standard, the aluminum honeycomb panels fireproofing grade is GB-8624-B1.

Fire Protection

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

Panel Dimensions

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

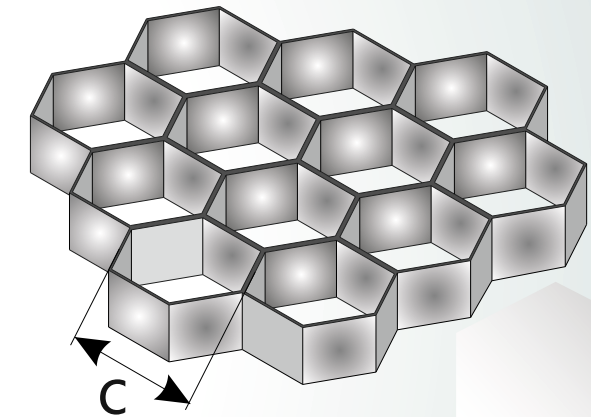
Customized Shade are available subjected to the approval, quantity and lead time.

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 "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

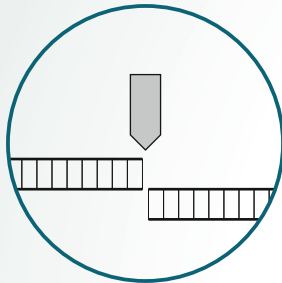
Aluminium Honeycomb Panels

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	

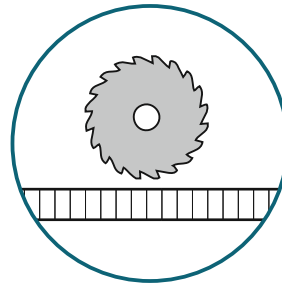




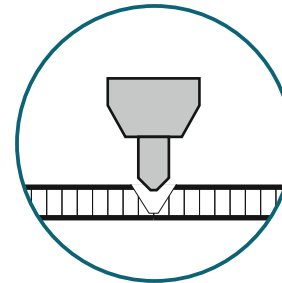
WHAT CAN WE DO WITH AHP



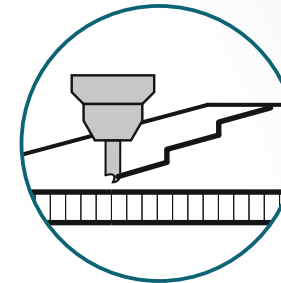
SECTION CUTTERS



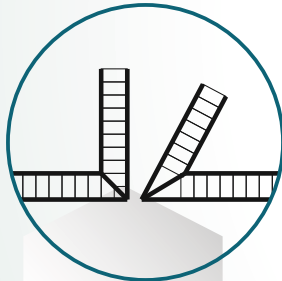
SAW CUT



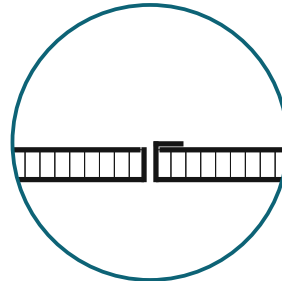
ROUTING



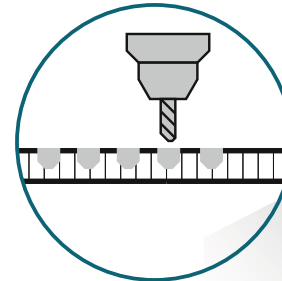
SHAPING CUT



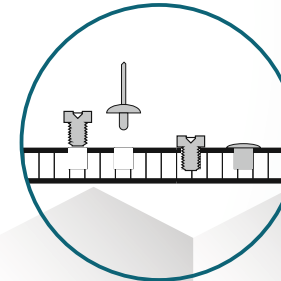
FOLDING/FORMING



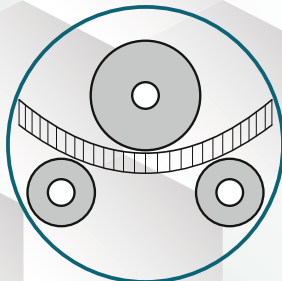
SIMPLE/DOUBLE EDGING



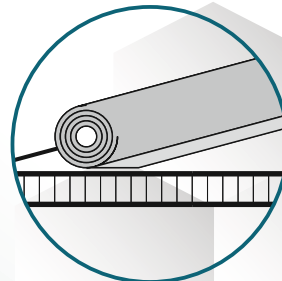
DRILLED/PERFORATED



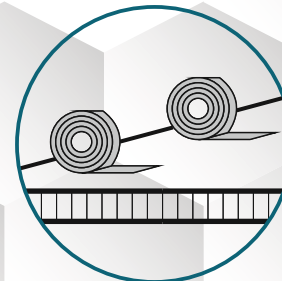
SCREWED/RIVETED



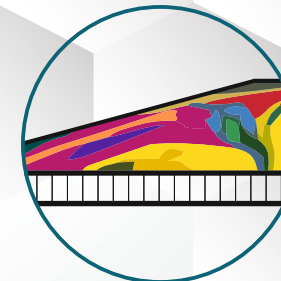
CURVED



LAMINATED



GLUED



PRINTING





Technical Data

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

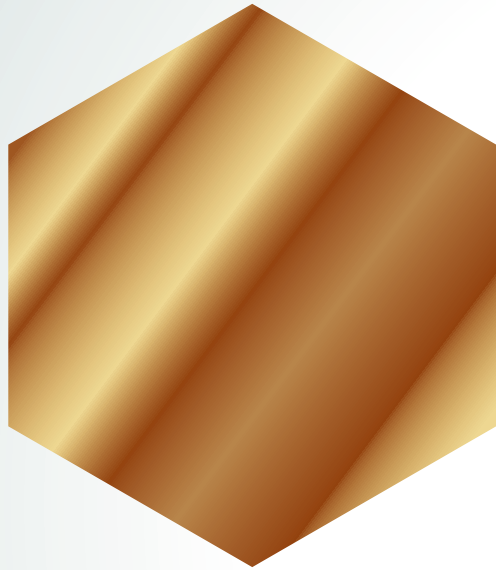
CERTIFICATE FOR CONSTRUCTION INDUSTRY

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/m ³	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 ³	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°				

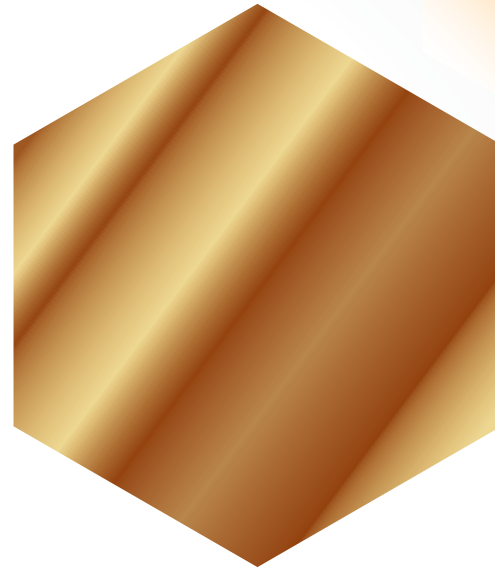




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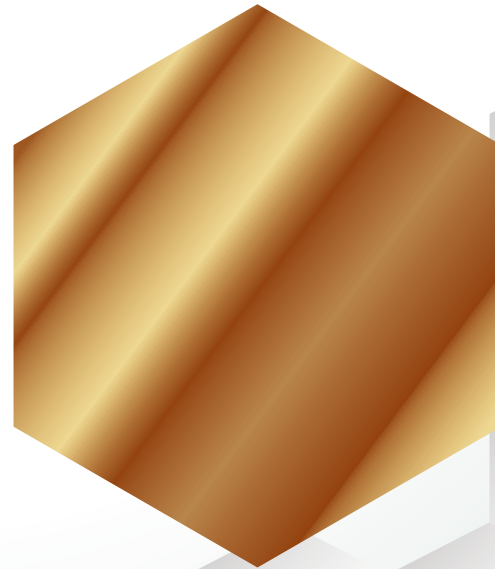
RA-04 Bright Silver



RA-06 Champagne Gold



RA-08 Bright White

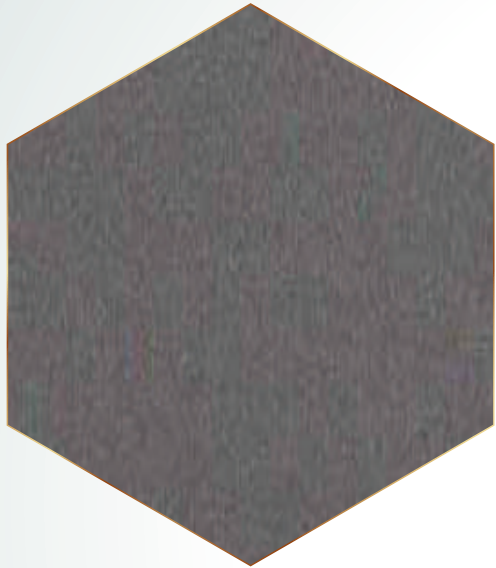


RA-10 Ivory White

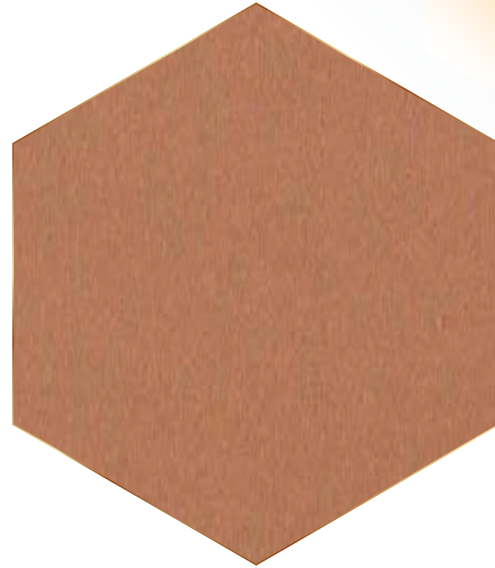




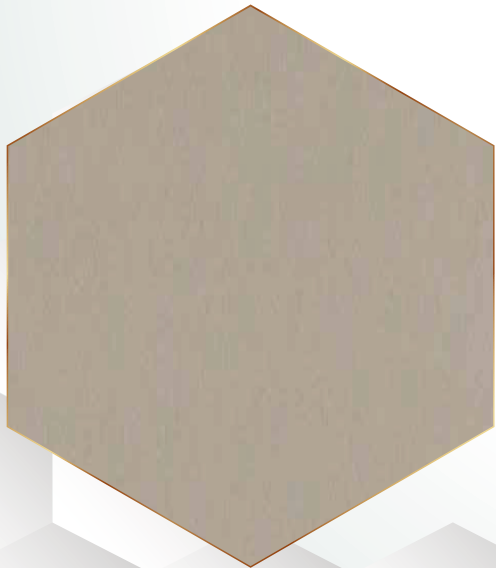
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RA-14 Black Silver



RA-15 Copper Metallic



RA-20 Metallic Bronze



RA-44 Dark Grey



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Manufactured by
REYNOBOND INDIA

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GURGAON : 7042296755

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KOCHI : 9311733248

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NOIDA : 9311811653
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RANCHI : 9006416500

