

## **FRONT PAGE LOGO & PHOTO**

### **Brochure Summary:**

- 1. Company Brief**
- 2. What we do**
- 3. Our Facility**
- 4. Our competitive advantage**
- 5. Why Aluminium Honeycomb Core?**
- 6. Our Product Portfolio**
- 7. Our Manufacturing Process**
- 8. Contact us**

### **Company Brief**

**Mass Transit Equipment India LLP (MTEI) was established in the year of 2019 envisioning the ever evolving future of aluminium honeycomb core & aluminium honeycomb panels. We are proud to acknowledge ourselves as India's leading and one of the few renowned manufacturers of aluminium honeycomb core in India.**

**Our Journey started as a trader of aluminium core from China for our parent company which was founded in 1975, a leading manufacturer of artificial leather, laminates, FRP, GFRE, honeycomb panels, PU form and other building materials supplying majorly to the Indian Railways & Defense.**

### **What we do**

**MTE India manufactures high quality aluminium honeycomb core material which is used in a wide variety of applications worldwide. Aluminium honeycomb is highly desirable due to its incredibly high strength-to-weight ratio and is applicable wherever lightness and strength are required. MTE India supplies high quality aluminium honeycomb to global markets including the Aerospace, Marine, Defence, Rail and Automotive industries.**

### **Our Facility**

**Built in 2019 & located in Changodar Gujarat, our production line of aluminium honeycomb core consists of fully automated, state of the art, functional machinery procured from Europe.**

**With a monthly capacity of **200** metric tonnes, we are able to fulfil the increasing demand of our many customers from various industry verticals at highly competitive prices.**

Our production Capacity:

Main Products & Production Capacity

Aluminum honeycomb panels: 600, 000 SQM annually;

Aluminum honeycomb core & corrugated core: 5 million SQM annually;

Marble, granite & Ceramic honeycomb composite panel:100,000 SQM annually;

FRP honeycomb panel: 100,000 SQM annually;

Rock wool Sandwich panel:100,000 SQM annually;

Solit aluminum sheet: 3.0 million SQM annually;



Manufacturing Base



## **Our Competitive Advantage**

**Mass Transit Equipment India Ltd boasts a strenuous R&D department comprising highly experienced engineers & technicians.**

**Our in-house secret recipe, the glue used in making aluminium honeycomb core is our competitive advantage over our competitors. The revolutionary glue mix is unique to Mass Transit Equipment India making us the only firm in India to manufacture high quality, durable, light weight aluminium honeycomb core materials.**

## **Why Aluminium Honeycomb Core ?**

**It is light-weight – 1/3 the weight of steel**

**It is strong, corrosion-resistant and a good conductor of heat and electricity**

**100% recyclable, without any loss of its natural qualities**

**It is easy to shape, form and fabricate**

**Aluminium does not burn – it melts at 650 degrees centigrade**

**When alloyed with another metal like Silicon or Magnesium, it can be stronger than Steel**

### **[Vast Applications of Aluminium Honeycomb Panels](#)**

**[\(Add images\)](#)**

**Continuous facades**

**Marble support**

**Clean rooms**

**Vans and trucks**

**Furniture, doors, bulkheads and deckchairs for boating**

**Railway flooring, ceiling, panels.**

**Bespoke Furniture**

### **[Our Product Portfolio](#)**

**Our range can be supplied in a variety of conditions, tailored to the individual needs of the customer.**

**Expanded or unexpanded**

**Full blocks or cut slices**

**Perforated or unperforated**

**Corrosion treated or untreated**

**Aluminium Alloy Grade 3003 or 5052**

**Our standard honeycomb can be expanded to the following sizes and depending on the cell size we can tailor it to your requirements.**

**W 2500mm x L 1250mm**

**W 3000mm x L 1500mm**

**Currently we cater to sizes (add images of all sizes)**

**6 MM**

**6.4 MM**

**7.4MM**

**9MM**

**12MM**

**\*Other block sizes are available on request. Depending on cell size and customer requirement.**

**MASS TRANSIT EQUIPMENT INDIA LTD CURRENTLY DEALS IN**

**HPL HONEYCOMB**

**STONE HONEYCOMB**

**CARBON FIBRE HONEYCOMB**

**FRP HONEYCOMB**

**ALUMINIUM HONEYCOMB**

**PLY ALUMINIUM HONEYCOMB PANEL**

## **1. HPL Honeycomb**

**Mass Transit Equip India LTD is India's top HPL-ALU Honeycomb Panel or High Pressure Laminate Honeycomb Panel manufacturer. HPL-ALU is a sandwiched panel bonded with high pressure laminate consisting of aluminium honeycomb core. HPL-ALU is known for its generous mechanical properties and highly fire retardant performances. It is widely applied in the shipbuilding, aerospace, and railway sector where lightness & fire properties are mandatory. The laminate face material can be customised in different RAL colours, thickness and coatings as per the design specification. We also provide tailored dimensions as per the clients requirements ensuring the highest quality of HPL-ALU at competitive prices.**

### **Technical Specifications:**

Specifications are determined by our customers

Honeycomb Core Type	ALU Ø9.0 - 54kg/m <sup>3</sup> - 3003				
Total thickness mm	10	12	15	20	25
Skin thickness mm	Top	1.0	1.0	1.0	1.0
	Bottom	1.0	1.0	1.0	1.0
Core thickness mm	8	10	13	18	23
Weight kg/m <sup>2</sup>	3.9	4.0	4.2	4.5	4.7
Temperature Resistance	Approximately -40°C to +80°				
Flatness	1.0 mm per meter				
Finish	Wooden/Stone/RAL Colours Available				

**AVAILABILITY**

**Standard Dimensions**  
1220mm x 2440mm

**Panel Thickness**  
Made to order, thickness 6 mm to 200 mm

**Standard Skin Thickness**  
0.7mm, 0.8mm & 1.0mm  
(other thicknesses and finishes available)

**ACCREDITATIONS**  
Quality Management System in accordance to ISO 9001:2015

## **2. STONE HONEYCOMB PANELS**

**Mass Transit Equipment India LTD manufactures high grade Stone Honeycomb Panels which are natural stone composite panels consisting of a thin stone veneer and an aluminium honeycomb backing. The stone veneer can be almost any stone including granite, marble, limestone, travertine and onyx.**

**Combining the aerospace technology of aluminium honeycomb with the timeless beauty of natural granite, marble and limestone, it can be used for a wide variety of applications including those typically considered weight or cost-prohibitive. They have been used extensively in exterior, interior, renovation, elevator, and specialty applications.**

**Stone Honeycomb Panel average weight is 16 kg/sq. m, which is approximately 80% less weight than solid stone. This weight savings alone provides huge savings in installation labor, structural requirements, and installing time. Tough, durable Stone Honeycomb Panels offer fantastic impact resistance and flexural strength. They can resist up to 60 times more impact than solid 3 cm thick granite.**

**Technical Specifications:**

**Add**

### **3. CARBON FIBRE HONEYCOMB PANELS**

**Mass Transit Equipment India LTD is India's top manufacturer of SS ALU PANELS. SS ALU PANELS known as a light-weight sandwich panel with a core in aluminium honeycomb and skin of stainless steel satin finish on both sides. This panel is highly used in interior decorative parts. It also has applications in architecture and technical design due to its decorative and mechanical properties. MTE SS- ALU panels can be widely used across flooring, lifts, engines and technical rooms where anti-slip properties are required.**

### Technical Specifications:

**Honylite**  
HONEYCOMB PANEL

### SS - ALU

SS ALU is a lightweight sandwich panel with a core in aluminum honeycomb and skins of stainless steel satin finish on both the sides. This panel is normally used as decorative part for interiors. Moreover, it is also used in architecture and design since it combines decorative and mechanical properties.

These panels can be used either for floors, ramps, lifts, engine and technical rooms and in general where anti slippery properties are required.

We also make honeycomb panels according to be needs of our clients for which dimensions and specifications are determined by our customers

Honeycomb Core type		ALU Ø9.0 - 54kg/m <sup>3</sup> - 3003				
Total thickness mm		10	12	15	20	25
Skin thickness mm	Top	0.8	0.8	0.8	0.8	0.8
	Bottom	0.8	0.8	0.8	0.8	0.8

honylite.com/wp-content/uploads/2021/02/Honylite-SS-ALU-Honeycomb-Panel.pdf

Skin thickness mm	Top	0.8	0.8	0.8	0.8	0.8
	Bottom	0.8	0.8	0.8	0.8	0.8
Core thickness mm		8.4	10.4	13.4	18.4	23.4
Weight kg/m <sup>2</sup>		14.2	14.3	14.5	14.7	15.0
Temperature Resistance	Approximately -40°C to +80°					
Flatness	1.0 mm per meter					
Skin grade	SS 304 / SS 316					
Finish	Hairline / Mirror					

**AVAILABILITY**

<b>Standard Dimensions</b>
1220mm x 2440mm (other dimensions available on request) Max. width 1525 mm and Max. length 4000 mm
<b>Panel Thickness</b>
Made to order, thickness 6 mm to 200 mm
<b>Standard Skin Thickness</b>
0.5mm, 0.8mm & 1.0mm (other thicknesses and finishes available)

**ACCREDITATIONS**

- Quality Management System in accordance to ISO 9001:2015
- In conformity with the EU-MED directive, European Union Marine Equipment Directory, to allow use in vessels constructed, built, registered or operated in Europe 0098
- C-class division according to SOLAS II-2, Reg. 3.10
- IMO MSC 61(67) Fire Test Procedures Code compliant
- Fire Tested in accordance to EN 13501-1 A2-s1, d0 classification

#### 4. FRP HONEYCOMB PANELS

Mass Transit India Equipment LTD is India's top manufacturer of FRP honeycomb panels. FRP-ALU is a lightweight composite panel with an aluminium honeycomb core faced with glass fibre impregnated with epoxy resin. This panel has the most unique characteristics making it the most lightweight, durable, corrosion free solution in many applications. The structure of FRP honeycomb aluminium makes it highly cost effective as far as weight & thickness are concerned.

Mass Transit Equipment India Ltd offers our clients a wide range of different dimensions and specifications of FRP aluminium honeycomb to choose from.

**Technical Specifications:**



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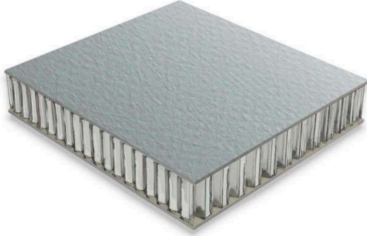
FRP - ALU

**HONYLITE**  
HONEYCOMB PANEL

FRP-ALU is a lightweight composite panel with an aluminum honeycomb core faced with fiber glass impregnated with epoxy resin.

This panel offers unique characteristics since it combines lightweight with high mechanical properties. The application of this panel for example permits huge savings as far as weight and thickness of natural stones slabs, such as marbles and granite and mosaics are concerned. In this way, also the costs of these materials can be reduced.

We also make honeycomb panels according to be needs of our clients for which dimensions and specifications are determined by our customers



Honeycomb Core Type		ALU Ø9.0 - 54kg/m <sup>3</sup> - 3003				
Total thickness mm		10	12	15	20	25
Skin thickness mm	Top	1.0	1.0	1.0	1.0	1.0
	Bottom	1.0	1.0	1.0	1.0	1.0
Core thickness mm		8	10	13	18	23

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Honeycomb Core Type		ALU Ø9.0 - 54kg/m <sup>3</sup> - 3003				
Total thickness mm		10	12	15	20	25
Skin thickness mm	Top	1.0	1.0	1.0	1.0	1.0
	Bottom	1.0	1.0	1.0	1.0	1.0
Core thickness mm		8	10	13	18	23
Weight kg/m <sup>2</sup>		4.0	4.1	4.2	4.5	4.8
Temperature Resistance		Approximately -40°C to +80°				
Flatness		1.0 mm per meter				
Finish		RAL Colours Available				

**AVAILABILITY**

<b>Standard Dimensions</b>
1220mm x 2440mm (other dimensions available on request) Max. width 2500 mm and Max. length 4000 mm
<b>Panel Thickness</b>
Made to order, thickness 6 mm to 200 mm
<b>Standard Skin Thickness</b>
1.0mm & 1.5mm (other thicknesses and finishes available)

**ACCREDITATIONS**

Quality Management System in accordance to ISO 9001:2015

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## 5. ALUMINIUM HONEYCOMB PANELS

Mass Transit Equipment India LTD is the top manufacturer of Aluminium honeycomb panels that is bonded with aluminium face material with a core in aluminium honeycomb.

**Mass Transit Equip makes lightweight, structural composite sandwich boards which are high in strength without adding the weight to primary and secondary panel structures.**

**This in turn saves time and reduces labor in various production industries. These aluminium honeycomb panels offer a high strength to weight ratio making them a suitable substitute of Plywood and OSB where weight reduction is prioritised.**

**Technical Specificaitons:**

**HONYLITE<sup>®</sup>**  
HONEYCOMB PANEL

### ALU - ALU LIGHT

ALU-ALU is a sandwich panel that is bonded with aluminum face material and with a core in aluminum honeycomb.

ALU-ALU honeycomb panel is a lightweight, structural composite sandwich board that adds strength, not weight, to primary and secondary panel structures, while saving time and reducing labor in production. It offers an exceptionally high strength to weight ratio, making these value-added sandwich panels an ideal substitute for Plywood and OSB in applications where weight reduction is required.

We also make honeycomb panels according to be needs of our clients for which dimensions and specifications are determined by our customers

Honeycomb Core Type		ALU Ø9.0 - 54kg/m <sup>3</sup> - 3003			
Total thickness mm		6.4 (1/4")	9.6 (3/8")	12.7 (1/2")	19.1 (3/4")
	Top	0.7	0.7	0.7	0.7

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Aluminum-Honeycomb-Panel\_Light.pdf 1 / 1 100%

Honeycomb Core Type		ALU Ø9.0 - 54kg/m <sup>3</sup> - 3003			
Total thickness mm		6.4 (1/4")	9.6 (3/8")	12.7 (1/2")	19.1 (3/4")
Skin thickness mm	Top	0.7	0.7	0.7	0.7
	Bottom	0.7	0.7	0.7	0.7
Core thickness mm		5.0	8.2	11.3	17.7
Weight kg/m <sup>2</sup>		4.9	5.1	5.3	5.6
Temperature Resistance		Approximately -40°C to +80°			
Flatness		1.0 mm per meter			
Skin alloy		AL 1100 / AL 3003			


**AVAILABILITY**


**Standard Dimensions**  
1220mm x 2440mm (other dimensions available on request)  
Max. width 1525 mm and Max. length 4000 mm


**Panel Thickness**  
Made to order, thickness 6 mm to 200 mm


**Standard Skin Thickness**  
0.5mm, 0.7mm, 0.8mm & 1.0mm  
(other thicknesses, alloys, powder coating & RAL colors available)

**ACCREDITATIONS**

 Quality Management System in accordance to ISO 9001:2015

 In conformity with the EU-MED directive, European Union Marine Equipment Directory, to allow use in vessels constructed, built, registered or operated in Europe 0098

 C-class division according to SOLAS II-2, Reg. 3.10

 IMO MSC 61(67) Fire Test Procedures Code compliant

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## 6. Plywood Honeycomb Aluminium PANEL

Mass Transit Equipment India LTD is the top manufacturer of Plywood Aluminium honeycomb sandwiched with aluminium honeycomb core and faced with plywood.

We cater to different design requirements of our clients with a wide range of selection of PLY-ALU used in interior design and furniture.

Technical specifications:


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## PLY - ALU

PLY-ALU is a sandwich panel with an aluminum honeycomb core and skins in plywood.

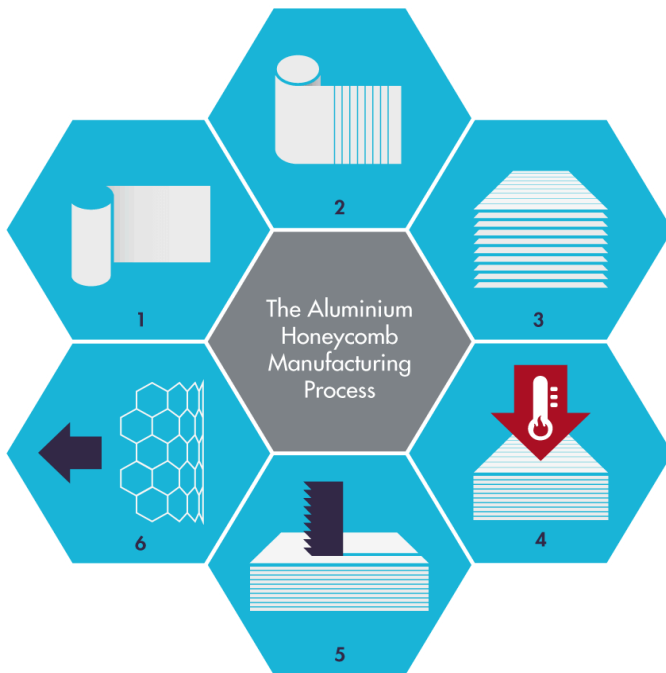
All our products are produced according to the needs of our customers, so it's the clients who choose the mechanical properties of the sandwich panel like the type of the wood, skin - thickness, panel - thickness, dimension, etc.

In shipbuilding sandwich panels PLY-ALU can be used for the interior design and furniture.



Honeycomb Core Type	ALU Ø9.0 - 54kg/m <sup>3</sup> - 3003			
Total thickness mm	15	20	25	30
Skin thickness mm	Top	3.5	3.5	3.5
	Bottom	3.5	3.5	3.5
Core thickness mm	8	13	18	23
Weight kg/m <sup>2</sup>	4.9	5.1	5.4	5.7
Temperature Resistance	Approximately -40°C to +80°C			

## Our Aluminium Honeycomb Manufacturing Process



The illustration above shows the manufacturing process step by step, with the description of each stage below:

**aluminium honeycomb manufacturing begins life as a roll of foil**

**Foil is passed through a printer for adhesive lines to be printed**

**Once the lines are printed, the foil is cut to size and stacked into piles using our stacking machine.**

**These stacked sheets are pressed using a heated press to allow the adhesive to cure and bond the sheets of foil together to form a block of honeycomb.**

**The block of honeycomb can be cut into slices. The thickness of the slices can be tailored to each customer's individual requirements.**

**Finally, the honeycomb is expanded, which completes the manufacturing process.**

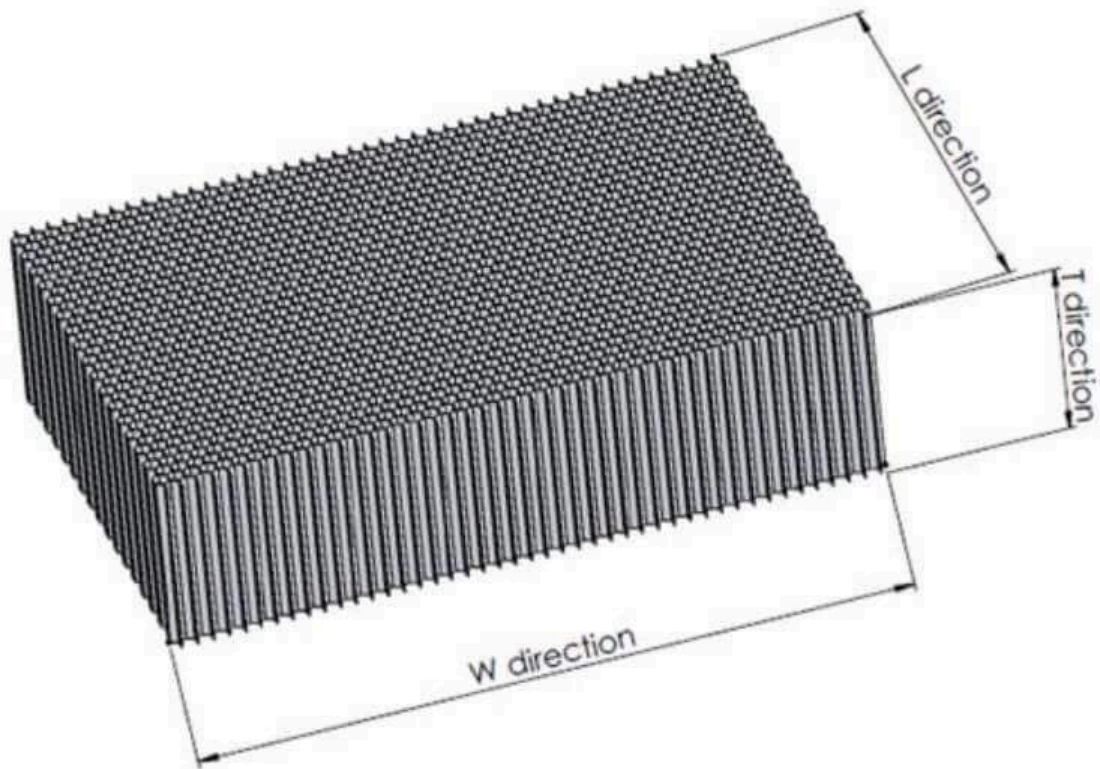
**The honeycomb core can be used sandwiched in-between two aluminium alloy skins to create an aluminium composite panel.**

**The most popular honeycomb manufacturing methods of sandwich panel construction are:**

**Heated Press – Used for the production of flat board or simple panels**

**In its unexpanded form, aluminium honeycomb is very compact and easy to ship cost effectively and with minimal risk of damage. Unexpanded cut slices with a large cell size or thinner slice can be easily expanded into their full sheet form, without the need for**

sophisticated equipment



**W = Transverse direction( perpendicular to core ribbon)**

**L = Longitudinal direction( parallel to core ribbon)**

**T = thickness**

**Honeycomb blocks can be cut to thicknesses to suit individual customer requirements. Using the latest cutting technology, Corex Honeycomb is able to supply slices up to a tolerance of  $\pm 0.125\text{mm}$  with a minimum slice thickness of 6mm.**

### **Contact Details**

**Company Address:**

**Sales inquiries:**

**Contact number:**

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same business check once @jmanav