

## 10mm Technical Data Sheet

Grand View's honeycomb panel, Alucomb, is constructed with lightweight hexagonal shapes of honeycomb cores between two sturdy aluminum sheets. With Grand View's progressive technology, up to 10 meters of panels can be produced each time with the patented Automatic Manufacturing Facility (AMF) machine. With this innovation, Alucomb is constructed through one of the most advanced technologies in the industry.

### Application

- Commercial building wall cladding
- Soffit and fascia panels
- Curtain wall façade

### Physical Properties

- Weight: 4.4kg/m<sup>2</sup> @ 10mmT
- Specific Gravity: 1.2

### Dimension Specification

1. Thickness	-	mm	10.0
2. Front Skin Thickness, F	-	mm	0.8
3. Rear Skin Thickness, R	-	mm	0.5
4. Standard Core	-	-	3/8", other available
5. Weight	-	kg/m <sup>2</sup>	4.4
6. Standard Width	-	mm	1020, 1250, 1575
7. Minimum/ Maximum Length	-	mm	1500 / 8000
8. Thickness Tolerance	-	mm	±0.2

### Mechanical Specification

1. Flatwise Strength	ASTM C 297	MPa	≥0.4
2. Flatwise Compressive Strength	ASTM C 365	MPa	≥1.0
3. Flexural Strength	ASTM C 393	MPa	≥18
4. T-Peel Strength	ASTM D 1876	N/50mm	≥100
5. Acoustic Reduction, Rw	ISO 717-1	dB	20
6. Thermal Resistance	ASTM E 1461	m <sup>2</sup> K/W	0.007
7. Thermal Conductivity	ASTM E 1461	W/mK	1.32
8. Temperature Stability		°C	-20 ~ +70

### Aluminum Skin Sheet Specification

<b>1. Aluminum Alloy Grade</b>	ASTM B 209	-	3003
<b>2. Temper of Aluminum</b>	ASTM B 209	H	16
<b>3. Tensile Strength</b>	ASTM B 209	N/mm <sup>2</sup>	Rm > 165
<b>4. Elasticity Modulus</b>	ASTM D 638	N/mm <sup>2</sup>	70,000
<b>5. 0.2% Proof Stress</b>	ASTM B 209	N/mm <sup>2</sup>	Rp 0.2 > 145
<b>6. Elongation</b>	ASTM B 209	%	A50 > 1.0
<b>7. Linear Thermal Expansion</b>	ASTM D 696	mm/m/100k	2.4 X 10 <sup>-5</sup>

### Aluminum Core Specification

<b>1. Aluminum Alloy</b>	ASTM B 209	-	3104
<b>2. Temper of Aluminum</b>	ASTM B 209	H	18
<b>3. Tensile Strength</b>	ASTM B 209	N/mm <sup>2</sup>	≥ 205
<b>4. Elasticity Modulus</b>	ASTM D 638	N/mm <sup>2</sup>	69,000
<b>5. Elongation</b>	ASTM B 209	%	≥ 1.0

### Adhesive Specification

<b>1. RoHS, Halogen</b>	IEC 62321	-	N.D. (Not Detected)
<b>2. LOI</b>	ASTM D 2863	-	20.6

### Fire Behaviour

<b>1. Fire Propagation</b>	BS 476, Part 6	-	Index 0
<b>2. Surface Flame Spread</b>	BS 476, Part 7	-	Class 1
<b>3. Non Combustibility</b>	ISO 1182	-	Class 1
<b>4. Smoke Generation</b>	ASTM E 662	-	Ds(1.5)=1 DS(4.0)=1 in flaming mode
		-	Ds(1.5)=1 Ds(4.0)=1 in non-flaming mode
<b>5. Surface Flammability</b>	ASTM E 162	-	Is = 5
<b>6. NFPA 130</b>	-	-	Passed