



Aluminum Composite Panel (ACP)

SUNTECH Aluminum Composite Panel (ACP) is manufactured with American Technology. The Panel is a composite consisting of two layers of Aluminum skin sandwiching a Thermoplastic core in a continuous co-extrusion process. This new generation technology of mechanical and chemical bonding gives SUNTECH Panels exceptional bond integrity.

The outer Aluminum skin for exterior grade SUNTECH Panels is coated with PVDF Kynar 500 fluorocarbon coatings. The lower Aluminum skin is Chromate treated and Polyester coated.

Following are the composition of a 4 mm SUNTECH ACP.

- ★ Kynar 500 Coating
- ★ Epoxy Resin Primer
- ★ Chromate treatment
- ★ Aluminium Skin 0.5 mm
- ★ P.E or Fire Rated Mineral Core 3 mm
- ★ Aluminium Skin 0.5 mm
- ★ Epoxy Resin Primer
- ★ Service Coat

1. ADVANTAGES OF SUNTECH ACP

- ★ Lightweight, extreme rigidity and flatness resulting in an economical option for high quality building facades and interior claddings.
- ★ Weather resistance combined with high acoustics, Thermal and Fire rated values.
- ★ Choice of Solid, Metallic, Granite, Veneer and Chameleon colors makes SUNTECH an Architect's dream for a choice of interior and exterior façade's treatment.
- ★ Easy machinability gives the flexibility of shapes making it a versatile panel to achieve complex designer solutions.



2. PRODUCT COMPARISON CHART

SUNTECH Aluminum Composite Panels have distinct advantages over other popular cladding materials like Solid Aluminium and Steel with superior strength to weight ratio as well as flatness, thermal and acoustic properties to name a few.

ITEM	SUNTECH ACP Panel	SOLID Aluminium	STEEL
Weight	4mm: 5.48 kg/m ²	3mm: 8.0kg/m ²	1.5mm: 11.47kg/m ²
Flatness	Very Flat	Uneven	Uneven
Heat Insulation	Best	Poor	Poor
Sound Insulation	25db	15db	5db
Echo Response	Low	Medium	High
Paint Consistency	Best	Inconsistent	Inconsistent
Paint Microns	Even	Uneven	Uneven
Weather Proof	Good	Good	Good
Fire Proof	Good	Good	Good
Fabrication	Easy	Difficult	Very Tough
Delivery	Quick	Slow	Slow
Total Cost	Economical	Medium Cost	Expensive
Maintenance	Easy	Easy	Easy
Installation	Quick	Slow	Very Slow

3. ARCHITECTURAL TESTING RESULT.

Properties	Results
Thermal Conductance	5.79Btu/hr. 2.0 F (32.9 W/m 2.0K)
Tensile Strength	5,408 psi (37.3 MPa)
Yield Strength	3,737 psi (25.8 MPa)
Elongation	6.1 %
Deflection Temperature Under Load	211 ⁰ C (411.8 ⁰ F)
Coefficient of Linear Thermal Expansion	2.02 x 10 ⁻⁵ mm/mm ⁰ C (1.12 x 10 ⁻⁵ in. /in ⁰ F)
Impact Resistance	4092 psi (28.2 MPa)
Toxicity	Within Acceptable Limits
Color Change at -20 ⁰ C	No Visible Change
Color Change at 80 ⁰ C	No Visible Change
Delaminating at -20 ⁰ C	No Delamination
Delaminating at 80 ⁰ C	No Delamination



4. APPLICATION OF SUNTECH ACP

SUNTECH array of colors and finishes combined with the inherent capability of forming in to different shapes and contours with durability and weather resistance make SUNTECH an Architect's Dream! Major corporations and Multi-National Companies have a definitive desire to make their structures an expression of Personal Designer Statement. SUNTECH becomes a natural choice to achieve this objective. The possible applications are limited to The Architect's imagination. Some of the commonly used SUNTECH applications are:

- ★ Circular Columns
- ★ Building Facades
- ★ Wall Paneling Concepts
- ★ Soffits and Beams
- ★ Metal Ceilings and Partitions
- ★ Exhibition and Display Stands
- ★ Shop fronts and Signage
- ★ Window Surrounds
- ★ Door Panels and Frames

5. SIZES AVAILABILITY IN SUNTECH PANEL

Standard Width : 1220 mm

Available Width : 1000 mm, 1250 mm, 1500 mm, 1550 mm

Standard length : 2440 mm

Available lengths : Any Length up to 6000 mm

Available thickness: 3mm, 4mm, 5mm, 6 mm.

Note: Most popular size is 1.25 M x 2.44 M

Optimal size for maximum container loadability: 1.25 M x 3.2 M



6. FIXING ACCESSORIES

Sl. No	Description	QTY PER M ²	
1	20 x 20 x 75mm x 2mm thk. Aluminium cleats with slots	5.3	Nos
2	M8 x 65mm Long Anchor Bolt	3.5	Nos
3	40 x 40 x 75 x 4mm thk. Aluminium Bracket with slots	3.5	Nos
4	40 x 40 x 4mm thk. Aluminium Angle	2.0	R.M
5	M8 x 25 mm Long nut, bolt & washer	3.5	Nos
6	10 x 25 mm long screw	5.3	Nos
7	12 mm Backing Rod	2.0	R.M
8	Silicon sealant @ 2.5 RM (Alusil u.s.a) 600 ml	0.40	Tube

7. COLOR AVAILIBILITY

As per Sample Board / Color Chart

8. SHIPMENT DETAILS

Container Loadability

20 ft. Container : approx. 3,000 Square Meter

40 ft. Container : approx. 4,500 Square Meter

Minimum Order

10 Containers (20ft or 40 ft.) per order / shipment

Minimum Order per Size and Color

Regular Color / Size : 500 Square Meters

Color specially to be developed : 1,000 Square Meters