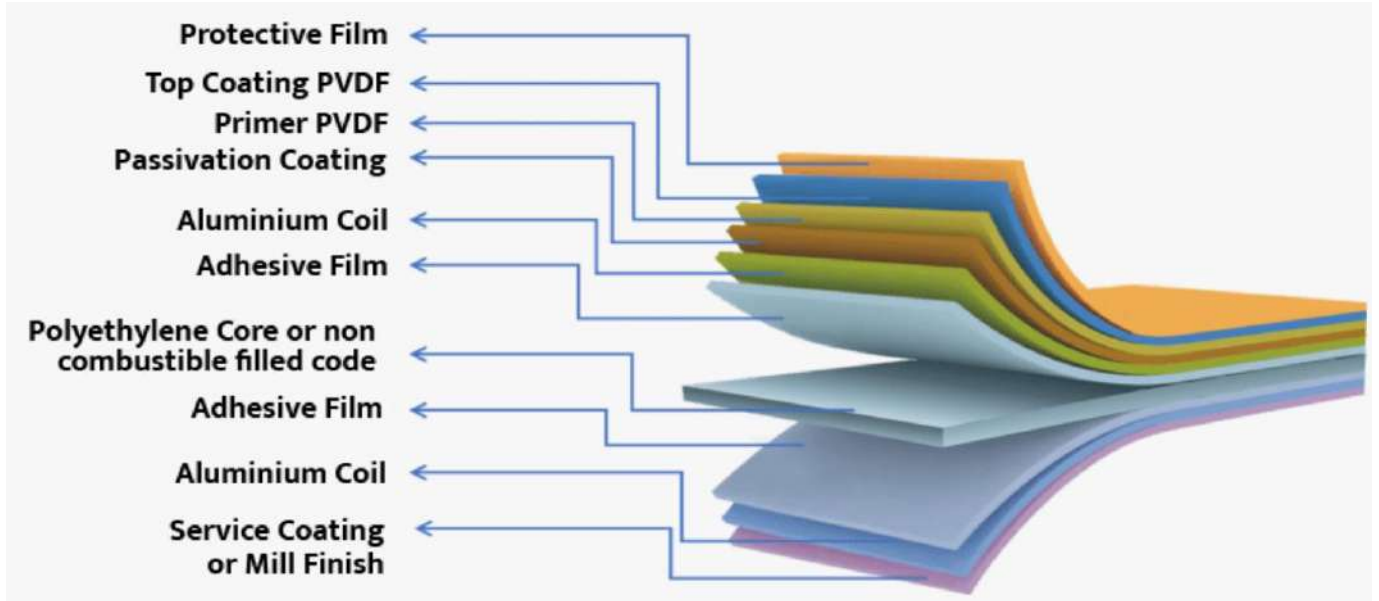


# ALUMINUM COMPOSITE PANEL



Main Specification	
Panel Width	1220mm/1250mm/1500mm
Panel Lengtr	upon customer' s request, <5800mm would be better
Panel Thickness	2.0mm~6.0mm, popularly 3mm, 4mm
Alu.Skin Thickness	0.06mm~0.50mm, popularly 0.21mm, 0.30mm, 0.50mm
Coating Type	Polyester (PE) or PVDF
Core Material	LDPE or FR core
Colors	upon customer' s request
Standard Size	1220mm*2440mm (4' *8' )

Dimension	Tolerance
Thickness	$\pm 0.20$ mm
Width	$\pm 2.0$ mm
Length	$\pm 3.0$ mm
Diagona	$\pm 5.0$ mm
Thermal Expansion	2.4mm/m@100°C Temp difference
Aluminum Thickness	$\pm 0.02$ mm

Surface Properties	
Pencil Hardness	>HB
Temperature Resistance	-40℃ ~80℃
Impact Strength (kg cm2)	50
Boiling Water Resistance	Boiling for 2 hours without change
Acid Resistance	Immerse surface in 5%HCl for 24 hours without change
Alkali Resistance	Immerse surface in 5%NaOH for 24 hours without change
Oil Resistance	Immerse surface in #20 engine oil for 24 hours without change
Solvent Resistance	Cleaned 100 times with Dimethylbenzene without change
Cleaning Resistance	>1000 times without change
Peel Strength 180°	180° >5 Newton/mm
Cold Resistance	-40℃

## Product Properties(2mm/3mm/4mm)

Sound Absorption NRC	0.05
Sound Attenuation Rw db	23/24/25
Water Absorption %by Vol	0.0047/0.0057/0.0012
Core Composition	Low-density Polyethylene (LDPE) or Fire-resistance Core
Colors	

Please refer to our factory's standard Color Chart; also accept colors as per RAL or Pantone code.

## Application

Building's curtain wall, exterior wall cladding

Decoration of interior walls

Partition board, kitchen and balcony board

Building's curtain wall, exterior wall cladding

Shop front decoration

Industrial materials, Vehicle and boat materials

General	Testing	Items	Standard	Result
Unit weight	ASTM	D792	Thk 3mm=4.6kg/m <sup>2</sup> ; Thk 4mm=5.5kg/m <sup>2</sup>	
Outdoor temperature resistance	ASTM	D1654	No abnormality	
Thermal expansion	ASTM	D696	3.0x10 <sup>-5</sup> -1	
Thermal deformation temperature	ASTM	D648	115	
Thermal conduction	ASTM	976	0.102Kcal/m.hr	
Flexural rigidity	ASTM	C393	14.0x10 <sup>5</sup>	
Impact resistance	ASTM	D732	1.650kgf	
Adhesive strength	ASTM	D903	0.74kgf/mm	
Sound-insulating rate	ASTM	E413	29	
Flexural Elasticity	ASTM	D790	4055kg/mm <sup>2</sup>	
Shear resistance	ASTM	D732	2.6kgf/mm <sup>2</sup>	
Minimum bending radius	ASTM	D790	45mm 70mm	
Fire propagation	ASTM	E84	Qualified	
Smoke developed	ASTM	E84	<45	
Wind-pressure resistance	ASTM	E330	Passed	
Properties against water	ASTM	E331	Passed	
Properties against air	ASTM	E283	Passed	

PVDF Testing Items	Standard	Result
Finish coat thickness	SO 2360 (CNS 8406)	27.6 μm
Gloss	ASTM D532-89	20~45%
Pencil hardness	ASTM D3363-00	2H
Toughness	ASTM D4145-83	2T no rift
Adhesive force	ASTM 3359-97	4B
Impact resistance	ASTM D2794-93	>100kg.cm
Abrasion resistance	ASTM D968-93	64.6L/mil
Mortar resistance	ASTM 605.2-90	24 Hrs pat test exceed
Humidity resistance	ASTM D714-97	3000hr no bliste
	ASTM D2247-02	
Boiling-water resistance	ASTM D3359-B	Passed
Salt-spray resistance	ASTM D117-03	3000hr no blister
Acid resistance	ASTM D1308-87	No effect
	AAMA 605.2-91, TEST#7, 7.31	
Alkali resistance	ASTM D1308-87	Passed
Solvent resistance	ASTM D2248-73	Passed
	ECCA T5&NCCA NO.11-18	
Color retention	ASTM D2244-93	E=0.34
Chalk resistance	ASTM D4214-98	No chalking
Gloss retention	ASTM D2244-93	84.2%
<p>Aluminum panel sheets are produced by a lamination process, where the core is sandwiched between two thin coil-coated aluminum sheets. The core is either made up of non-combustible solid aluminum or polyethylene, which is a thermoplastic resin. Our ACP panels are further coated with PVDF paint to impart anti-corrosion and UV-resistant properties to the ACP boards.</p> <p>We deal in aluminum composite panels with total thicknesses of 3mm, 4mm, and 6mm, inclusive of the adhesive layers. OSIGN offers aluminium panel sheets in numerous hues and textures, offering exceptional aesthetic versatility and creative liberty to the designers and architects.</p>		

