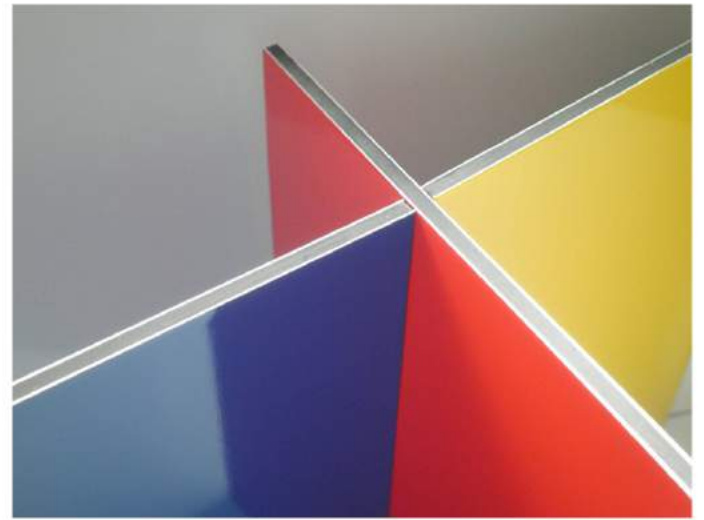
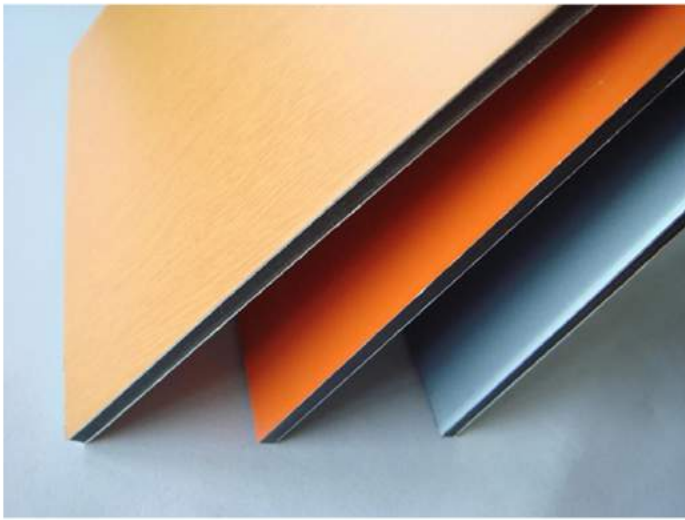




ALUMINUM COMPOSITE PANEL



ACP

- ① ALUSIGNPANEL Protective Film
- ② Top Aluminum Skin with PE/PVDF coating
- ③ Polymeric membrane
- ④ Standard LDPE Core & Optional FR Core
- ⑤ Polymeric membrane
- ⑥ Bottom Aluminum Skin with service coating



Main Specification

Panel Width	1220mm / 1250mm / 1500mm
Panel Length	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	± 0.20 mm
Width	± 2.0 mm
Length	± 3.0 mm
Diagonal	± 5.0 mm
Thermal Expansion	2.4mm/m@100°C Temp difference
Aluminum Thickness	± 0.02 mm

Surface Properties

Pencil Hardness	> HB
Temperature Resistance	-40°C ~ 80°C
Impact Strength (kg cm ²)	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°C

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 ² ; Thk 4mm=5.5kg/m ²
Outdoor temperature resistance	ASTM D1654	No abnormality
Thermal expansion	ASTM D696	$3.0 \times 10^{-5} - 1$
Thermal deformation temperature	ASTM D648	115
Thermal conduction	ASTM 976	0.102Kcal/m.hr
Flexural rigidity	ASTM C393	14.0x10 ⁵
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 ²
Shear resistance	ASTM D732	2.6kgf/mm ²
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	ISO 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 blister
	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%

