

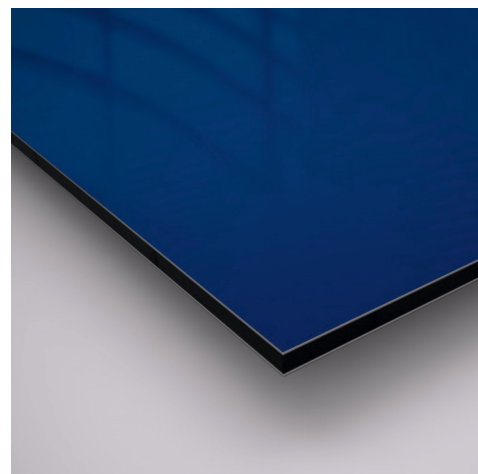
Technical data

CODE:**PRODUCT:**

ACPg

NOTE:

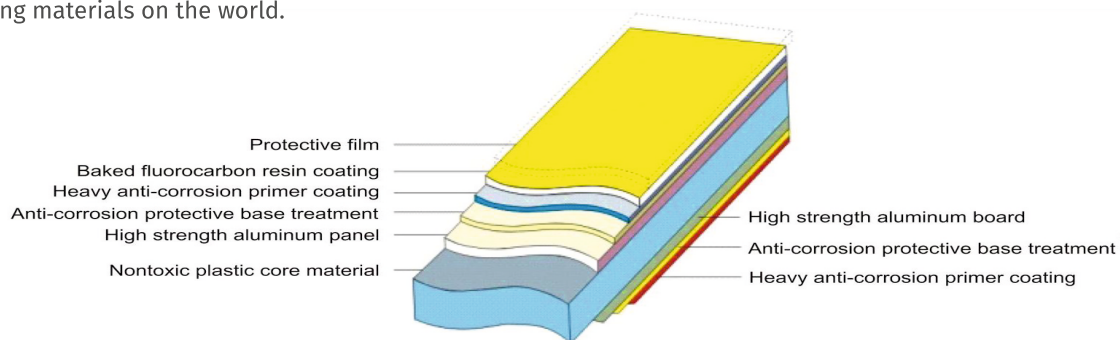
TECHNICAL DATA

IMAGE:**LAST UPDATE:**

7/2021

ALUMINIUM COMPOSITE PANEL

The panel consists of two sheets of corrosion resistant aluminum permanently bond to polyethylene core materials. The front aluminium coating PVDF (Fluororesin) paint. Because of it's excellent weather proof and other features. The panel becomes a very popular cladding materials on the world.



Feature

Lightly weight, high strength, extreme rigidity and flatness. Good weather proofness, acid-resistance, alkali-resistance. Excellent in heat insulation, sound insulation. Easily processed and fabricated, quickly installed.

Application

Building exterior wall cladding. Old building wall decoration reformation. Balconies, shop face decoration. Signboard, display platforms.

Specification

Panel thickness: 3 mm, 4 mm, 5 mm
 Panel width: 1220 mm, 1250 mm, 1500 mm
 Panel length: 2440 mm, 3050 mm, 3200 mm, 3600 mm (max. 6000 mm)
 Aluminium foil thickness: 0,50 mm; 0,40 mm; 0,30 mm
 Color: see color chart

Main specification

Panel width	1220 mm / 1250 mm / 1500 mm
Panel Length	upon customer's request, < 5800 mm would be better
Panel thickness	2,0 mm ~ 6,00 mm, recommend 3 mm, 4 mm
Alu. skin thickness	0,10 mm ~ 0,5 mm, recommend 0,21 mm, 0,30 mm
Coating type	Polyester (PE) or PVDF
Core material	LDPE or FR core
Colors	upon customer's request
Standard size	1220 mm * 2440 mm * 3 mm / 4 mm
Dimension tolerance	
Thickness	± 0,2 mm
Width	± 2,0 mm
Length	± 3,0 mm
Diagonal	± 5,0 mm
Thermal expansion	2,4 mm/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° >Newton/mm
Cold resistance	- 40°C

Product properties (2 mm / 3 mm / 4 mm)

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 acccet colors as per PAL or Pantone code	
Application	
Building's curtain wall, erior wall claddig	
Decoration of interior walls	
Partition board, kitchen and balcony board	
Shop front decoration	
Industrial materials, Vehicle and boat materials	

General testing items	Standard	Result
Unit weight	ASTM D792	Thk 3 mm = 4,6 kg/m ² ; Thk 4 mm = 5,5 kg/m ²
Outdoor temperature resistance	ASTM D1654	No abnormity
Thermal expansion	ASTM D696	3,0 x 10 ⁻⁵ -1
Thermal deformation temperature	ASTM D648	115
Thermal conduction	ASTM 976	0,102 Kcal/m.hr
Flexural rigidity	ASTM C393	14,0 x 105
Impact resistance	ASTM D732	1.650 kgf
Adhesive strength	ASTM D903	0,74 kg/mm
Sound-insulating rate	ASTM E413	29
Flexural elasticity	ASTM D790	4055 kg/mm ²
Shear resistance	ASTM D732	2,6 kgf/ mm ²
Minimum bending radius	ASTM D790	45 mm 70 mm
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	>100 kg.cm
Abrasion resistance	ASTM D968-93	64.6 L/mil
Mortar resistance	ASTM 605.2-90	24 Hrs pat test exceed
Humidity resistance	ASTM D714-97	3000 hr no blister
	ASTM D2247-02	
Boiling-water resistance	ASTM D3359-B	Passed
Salt-spray resistance	ASTM D117-03	3000 hr 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%