

Technical Data--Aluminum Composite Panel

Test term	Test Standard	Test Value
Deflection temperature under heat	ASTM D648-01 GB/T17748-2008	117°C
Boil-water resistance	ASTM D3359-B GB/T17748-2008	Surface color unchanged boiling for 2 hrs.(passed)
Gloss	ASTM D532-89 GB/T17748-2008	20-85%
Smoke developed	ASTM E84a GB/T17748-2008	<45
1800peel strength	ASTM D903 GB/T17748-2008	10.7 N/mm
Tensile strength	ASTM D638-02GB/T17748-2008	49.6 Mpa
Wind-pressure resistance	ASTM E33ga GB/T17748-2006	Passed
Minimum bending radius	ASTM D790a GB/T17748-2008	(LO)45mm, (PO)70mm
Impact resistance	ASTM D732a GB/T17748-2008	1.650 kgf
Toughness of coating	ASTM D4145-83 GB/T17748-2008	2T no Rift
Sound-insulating rate	ASTM E413a GB/T17748-2008	25db
Adhesive force	ASTM D3359-87a GB/T17748-2008	4B
Humidity resistance	ASTM D2247-87 GB/T17748-2008	3000 hr No blister
Pencil hardness	ASTM D3363-74 GB/T17748-2008	3H
Thermal expansion	ASTM D696a G8/T17748-2008	1.98x10 ⁻⁵ °C-1
Flexural Strength	ASTM D790-02 GB/T17748-2008	108 Mpa
Gloss retention	ASTM D2244-85 GB/T17748-2008	85%
Finish coat thickness	ISO 2360(CNS64) GB/T17748-2008	29 um
Shear resistance	ASTM D732a; GB/T17748-2008	2.6 kgf/mm ²
Mumidity resistance	ASTM 2605-90 GB/T17748-2008	24 Hrs pat test exceed
Adhesive strength	ASTM D903a GB/T17748-2008	0.78 kg/mm
Fire propagation	ASTM E84a GB/T17748-2008	Class B1
Flexural Elasticity	ASTM D790a GB/T17748-2008	4055kg/mm ²
Properties against air	ASTM E283a GB/T17748-2008	Passed
Impact resistance	ASTM D2794 GB/T17748-2008	No crack after 60 kg.cm.
Abrasion resistance	ASTM D96&81 GB/T17748-2008	64.5L/mil
chalk resistance	ASTM D4214-89 GB/T17748-2008	No chalk
Color retention	ASTM D2244-87,(85) GB/T17748-2008	E=0.34
Resietance to change of tempearture	GB/T17748-2008	Surface no change 20 cycle in -40°C~80°C
Properties against water	ASTM E331a GB/T17748-2008	Surface color no changed after 1000 times clean.(passed)
Outdoor temperature resistance	ASTM D1654a G8/T17748-2008	No abnormality
Alkali resistance	ASTM D1308-87 GB/T17748-2008	Surface color unchanged with 5% NaOH(mpm) for 48 hrs.(passed)
Solvent resistance	ASTM D2248-73GB/T17748/ 999, ECCAT5 & NCCANO. 11-18 GB/T17748-2008	Bottom unrevealed after clean 100 times with butanone.(passed)
Acid resistance	ASTM E84a GB/T17748-2008	Surface color unchanged with 5% HCL(v/v) for 48 hrs.(passed)
Flexural Rigidity	ASTM D393a GB/T17748-2008	14.0x 105kg/mm ²
Salt-spray resistance	AAMA 2605-91, TEST #7,7.31 GB/T17748-2008	3000 hre No blister(passed)
Thermal condution	ASTM D976a GB/T17748-2008	0.102 Kcal/m.hrA4:C39A2:C39C36A14:C39A1:C39