

DATASHEET

ALUPANEL

Aluminium composite sheet has a polyethylene core sandwiched between two aluminium skins and is a rigid, lightweight product available in a wide range of colours and finishes. The smooth and extremely flat surface of aluminium composite readily accepts screen and digital print inks as well as vinyl lamination.

Applications

- Commercial & Public Signs
- Corporate Identity
- Display Boards
- Billboards
- Exhibition Stands
- Showroom Finishes
- Furniture Parts
- Partition & Ceiling Panels
- Parapet Wall Copings
- Balcony & Canopy Cladding

Availability

- Colour – Wide range of colours available
- Size: 2440x1220mm and 3050x1500mm sheets
- Regularly produced in 3mm thickness

Typical Properties

General Properties	Conditions	Units	Test Result		
			2mm	3mm	4mm
Physical Properties					
Relative Density		g/cm ³	2.9	3.8	4.75
Water Absorption	24 hr @ 23°C	%	0.01		
Mechanical Properties					
Pencil Hardness			>HB		
Toughness of Coating			3T		
Tensile Strength at Yield	10mm/min	MPa	145		
Tensile Strength at Break	10mm/min	MPa	185		
Elongation at Yield	10mm/min	%			
Elongation at Break	10mm/min	%			
Tensile Modulus of Elasticity	1mm/min	MPa	70,000		
Izod Impact Strength	notched	J/m			
Charpy Impact Strength	notched	J/m			
Impact Falling Weight	3mm sheet	J			
Rockwell Hardness					
Peel Strength 180°		N/mm	>5		
Thermal Properties					
Service Temperature		°C	-50 to +90		
Coefficient of Thermal Expansion		Mm/m°C	0.024		
Thermal Resistance	R	M2 K/W	0.0047	0.0057	0.0072
Specific Heat Capacity		kJ/kg°K			
Electrical Properties					



Dielectric Strength	500V/s	kV/mm		
Surface Resistivity	Keithley	Ω		
Chemical Resistance				
Boiling Water	2 hours		No Change	
Acid	24hr @ 2% HC1		No Change	
Alkali	24hr @ 2% NaOH		No Change	
Oil	24hr @ 2% Engine Oil		No Change	
Solvent	100 x Dimethylbenzene		No Change	
Cleaning Resistance	>1000 times		No Change	

Flammability

Standard	Classification
BS 476 Part 7	Class 1