

ALUPANEL®

Property	Conditions	Units	Value/Thickness		
Physical			2mm	3mm	4mm
Relative Density		g/cm³	2.9	3.8	4.75
Water Absorption	24 hr @ 23°C	%	0.01		
Mechanical					
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					
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					
Dielectric Strength	500V/s	kV/mm			
Surface Resistivity	Keithley	Ω			
Chemical Resistance					
Boiling Water	2 Hours		No Change		
Acid	24 Hr @ 2% HC1		No Change		
Alkali	24 Hr @ 2% NaOH		No Change		
Oil	24 Hr @ 2% Engine Oil		No Change		
Solvent	100 x Dimethylbenzene		No Change		
Cleaning Resistance	>1000 times		No Change		

Other physical properties and values available on request.

Flammability

Standard	Classification
BS 476 Part 7	Class 1