

TECHNICAL DATA SHEETS

Alucolam FR 4 mm

Dimension Specification			
		Unit	
Thickness		mm	4.0
Front Skin Thickness, F		mm	0.5
Rear Skin Thickness, R		mm	0.5
Standard Core		mm	3.0
Weight		kg / m ²	7.1
Standard Width		mm	1020, 1250, 1575
Minimum / Maximum Length		mm	2000 ~ 6000
Thickness Tolerance		mm	±0.2

Mechanical Specification			
	Standard	Unit	
Flatwise Tensile Strength	848 PSI	MPa	≥ 3
T-Peel	ASTM D 1876	N/25mm	≥ 100
Flexural Modulus	ASTM C 393	MPa	≥ 40,000
Tensile Strength	ASTM E 8	N/mm ²	≥ 35
Elongation at Break	ASTM E 8	%	≥ 5
Acoustic Reduction, Rw	ISO 140-3	dB	28
Thermal Resistance	ASTM C 518	m ² k/W	0.009 ~ 0.011
Thermal Conductivity	ASTM C 518	W/mK	0.35 ~ 0.45
Linear Thermal Expansion	ASTM D 696	mm/m/100k	2.4x10 ⁻⁵
Temperature Stability		°C	-20 ~ +80
Climbing Drum Peel for Adhesives	ASTM D 1781-98	N mm/mm	125

Chemically Resistant & Weatherability			
	Standard	Unit	
HCl(5%)	ASTM D 1308	-	No change
H ₂ SO ₄ (5%)	ASTM D 1308	-	No change
Salt Spray	ASTM B 117	-	No change
Humidity	ASTM D 2247	-	No change
RoHS	IEC 62321	mg/kg	N.D. (Not Detected)



Aluminum Skin Sheet Specification

	Standard	Unit	
Aluminum Alloy Grade	ASTM B 209	-	3003
Temper of Aluminum	ASTM B 209	H	16
Tensile Strength	ASTM B 209	N/mm ²	207 > Rm > 165
Elasticity Modulus	ASTM D 638	N/mm ²	70,000
0.2% Proof Stress	ASTM B 209	N/mm ²	Rp 0.2 > 145
Elongation (A50)	ASTM B 209	N/mm ²	> 1
Gloss (60°)	ASTM D 523	%	25 ~ 40
Pencil-Hardness	ASTM D 3363	-	H ~ 2H
Abrasion Resistance	ASTM D 968	-	No change

Core Specification

	Standard	Unit	
Density (23°C)	ASTM D 1505	g/cm ²	1.53 ~ 1.57
Tensile Strength	ASTM D 638	MPa	≥ 10
Elongation at Break	ASTM D 638	%	≥ 5
Thermal Conductivity	ASTM C 518	W / mK	0.39
Linear Thermal Expansion	ASTM D 696	mm / m / 100k	8.6x10 ⁻⁵
Limited Oxygen Index (LOI)	ASTM D 2863	%	≥ 37

Fire Behaviour

Fire Propagation	BS 476, Part 6	-	Index 0
Surface Flame Spread	BS 476, Part 7	-	Class 1
Flame Spread	ASTM E 84	-	Passed
Smoke Developed	ASTM E 84	-	Passed
Fire Resistance Test	ASTM E119	min	72
Fire Flammability	UL V94	-	V0

The information on this sheet is for references only.