

ILM-U1

Copper clad basic material FR4



Properties

Test Item	Treat condition	Specification	Typical Data
1. Peel Strength lb/in, minimum (1/20Z) Accepted	A	≥ 6.0	6.0-8.0
After thermal stress	A	≥ 6.0	6.0-8.0
At 125°C [257°F]	125°C	≥ 4.0	5.5
2. Volume Resistivity, minimum, $M\Omega$ -cm At elevated temperature E-24/125	E-24/125	$\geq 10^3$	3×10^6
3. Surface Resistivity, minimum, $M\Omega$ At elevated temperature E-24/125	E-24/125	$\geq 10^3$	3×10^6
4. Moisture Absorption, maximum (%)	E-1/105+des	≤ 0.80	0.15-0.30
5. Dielectric Breakdown, minimum KV (Thickness ≥ 0.50 mm)	D-48/50 D-0.5/23	≥ 40	65
6. Flexural Strength, minimum (N/mm ²) (Thickness ≥ 0.50 mm)			
Length direction	A	≥ 415	490
Cross direction	A	≥ 345	410
7. Arc Resistance, minimum, seconds	D-48/50 D-0.5/23	≥ 60	90
8. Flammability	A	UL94 V-0	UL94 V-0
9. Solderability	A	Solderable	Solderable

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10. Permittivity at 1MHZ	A	≤ 5.4	4.5-4.8
11. Loss Tangent at 1MHZ	A	≤0.035	0.020-0.030
12. Twist And Bow, Max (%)			
Double Side (≥0.78mm ; Size 300mm× 300mm)	A	≤1.0	0.15-0.50
Single Side (≥0.78mm ; Size 300mm× 300mm)	A	≤1.5	0.25-0.60
Double Side (0.5-0.78 mm; Size 300mm× 300mm)	A	≤1.5	0.20-0.55
Single Side (0.5-0.78 mm; Size 300mm× 300mm)	A	≤2.0	0.30-0.70
13. Thermal Stress, 288°C, 10 s.			
Unetched	A	NO DEFECT	60-100sec.
14. Glass Transition Tg (DSC, °C)	A	≥110	≥125
15. Z-axis CTE	Before Tg (μ m/m°C)	TMA	60
	After Tg (μ m/m°C)	TMA	270
	50~260°C (%)	TMA	4.5
16. Process Applicability: Suitable for normal process.			
17. Application of the Product: War industry, communication products, information industry and auto PCB, etc. except instruments.			
18. Application Wire: No special requirements.			
19. Application Size : Set≤300× 300mm, Length: Width ≤5.			

Remark: 1、 The meaning of letter and date about treat condition: A-normal condition D- thermostatic waterbath E- bake in high temperature date1/date2: 1-time(hour) 2-temperature(□) des-dry sample and fall on natural temperature.

2. The specification of twist and bow is only suitable for CCL upward.

Our technical data are collected according to best knowledge and with a highest degree at accuracy, but are not binding and without any acceptance of liability. Our customers are responsible for testing of the conditions of the goods and ability for the own production, procedure and application of the designed products

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