

KB-6168 (ANSI : FR-4.0)

Features

- 180°C (By DSC),low Z-axis expansion
- High Temperature of Decomposition
- Excellent heat resistance and appropriate for lead-free assembly
- IPC-4101D/126specification is applicable .
- Dicy –free and filler
- ANTI-CAF

General Properties

Test Item	Unit	Test Method (IPC-TM-650)	Test Condition	Specification (IPC-4101D)	Typical Value
Peel Strength (1 oz.)	N/mm	2.4.8	125°C	AABUS	1.30
			Float 288°C/ 10 Sec	AABUS	1.25
Flammability	Rating	UL94	E-24/23	UL94 V-0	V-0
Glass Transition (Tg)	°C	2.4.25	E-2/105 DSC	180±5	180
Surface Resistivity	MΩ	2.5.17.1	C-96/35/90	≥1.0×10 ⁴	1.0×10 ⁷
Volume Resistivity	MΩ-cm	2.5.17.1	C-96/35/90	≥1.0×10 ⁶	1.0×10 ⁹
Dielectric Breakdown	kV	2.5.6	D-48/50+D0.5/23	≥40	72
Dielectric Strength	kV/mm	2.5.6.2	D-48/50+D0.5/23	≥30	46
Dielectric Constant	—	2.5.5.2	Etched/@1 MHZ	≤5.4	4.65
Loss Tangent	—	2.5.5.2	Etched/@1 MHZ	≤0.035	0.018
Moisture Absorption	%	2.6.2.1	D-24/23	≤0.35(min0.51)	0.14
				≤0.80(max0.51)	0.26
Flexural Strength	N/mm ²	2.4.4	Length direction	≥415	596
			Cross direction	≥345	496
Arc Resistance	Sec	2.5.1	D-48/50+D0.5/23	≥60	123
CTE Z-Axis Expansion	ppm/°C	2.4.24	E-2/105 TMA	≤60/300	45/248
	% (50-260°C)			≤3.0	2.8
TD	°C	2.4.24.6	TGA	≥340	359
T-260	min	2.4.24.1	TMA	≥30	60
T-288	min	2.4.24.1	TMA	≥15	30

Remarks: Specimen Thickness: 1.6 mm

- A = Keep the specimen originally without any process
- C = Temperature and humidity conditioning
- D = Immersing in distilled water with temperature control
- E = Temperature conditioning

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Other data for references

Item		Unit	Typical Value
Young's modulus	Warp	Million psi	3.6
	Fill		3.1
Tailors modulus	Warp	Million psi	3.3
	Fill		3.1
Poisson's ratio	Warp	--	0.12
	Fill		0.11
Tensile strength	Warp	N/mm ²	385
	Fill		265
Dk (RC :42%)	1MHZ	--	4.65
	1GHZ		4.3
	2GHZ		4.23
	5GHZ		4.19
	10GHZ		4.13
Df (RC :42%)	1MHZ	--	0.0174
	1GHZ		0.019
	2GHZ		0.0202
	5GHZ		0.0211
	10GHZ		0.022

Applications

- High layers PCB, suitable for Computer, Communication equipment, etc.

Purchasing Information

Base color	Face	Thickness	Copper Cladding	Regular Size	CTI Value
Natural	1	0.05mm ~ 3.2mm	18μm /35μm 70μm /105μm	10*10cm 10*15cm 30*30cm 5*10cm	175V
Natural	2	0.05mm ~ 3.2mm	18μm /35μm 70μm /105μm	25*30cm	175V

Note: Other sheet size and thickness could be available upon request.