KB-6165 （ANSI：FR-4）

覆铜箔环氧玻纤布层压板

特 点

- Tg 150℃ (DSC 测试), 低 Z-轴 CTE 值
- 热裂解温度高
- 优良的耐热性，能满足无铅制程要求
- 符合 IPC-4101B/124 的规范要求
- 非双氰胺固化体系,不含填料
- 良好的耐金属离子迁移性

Features

- 150℃ (By DSC), low Z-axis expansion
- High Temperature of Decomposition (Td)
- Excellent heat resistance and appropriate for Lead Free Assembly.
- IPC-4101B/124 specification is applicable .
- Dicy –free and no filler
- ANTI-CAF

General Properties 一般特性

Test Item 测试项目	Unit 单位	Test Method (IPC-TM-650) 测试方法	Test Condition 处理条件	Specification （IPC-4101B） 规格值	Typical Value 典型值
Peel Strength (1 oz.) 铜箔剥离强度	N/mm	2.4.8	125℃	≥0.70	1.35
			Float 288℃/ 10 Sec	≥1.05	1.42
Flammability 燃烧性	Rating	UL94	E-24/23	UL94 V-0	V-0
Thermal stress 热应力	Sec	2.4.13.1	Float288℃/unetched	≥10	60
Glass Transition (Tg) 玻璃转化温度	℃	2.4.25	E-2/105 DSC	≥150	153
Surface Resistivity 表面电阻	MΩ	2.5.17.1	C-96/35/90	$\geq 1.0\times10^{4}$	1.0×10^{7}
Volume Resistivity 体积电阻	MΩ-cm	2.5.17.1	C-96/35/90	$\geq 1.0\times10^{6}$	1.0×10^{9}
Moisture Absorption 吸水性	%	2.6.2.1	D-24/23	≤0.35(min0.51)	0.16
				≤0.80(max0.51)	0.30
Dielectric breakdown 介质击穿	KV	2.5.6	D-48/50+D0.5/23	≥40	48
Dielectric strength 介质强度	KV/mm	2.5.6.2	D-48/50+D0.5/23	≥29	40
Flexural Strength 抗弯强度	N/mm^2	2.4.4	Warp	≥415	560
			Fill	≥345	430
Dielectric Constant 介电常数	—	2.5.5.2	Etched/@1 MHZ	≤5.4	4.5
Loss Tangent 介质损耗	—	2.5.5.2	Etched/@1 MHZ	≤0.035	0.018
Arc Resistance 耐电弧性	Sec	2.5.1	D-48/50+D0.5/23	≥60	125
CTE Z-Axis Expansion Z 轴热膨胀系数	ppm/℃	2.4.24	E-2/105 TMA	≤60/300	55/287
	%（50-260℃）			≤3.5	3.1
TD	℃	2.4.24.6	TGA	≥325	335
CAF	H	-	85%,85℃,50V DC	≥1000	1000
T-260	min	2.4.24.1	TMA	≥30	50
T-288	min	2.4.24.1	TMA	≥5	23

Remarks: Specimen Thickness: 1.6 mm 样品厚度：1.6 mm

A = Keep the specimen originally without any process 保持原样,不作处理

C = Temperature and humidity conditioning 在恒温恒湿的空气中处理;

D = Immersing in distilled water with temperature control. 浸在恒温的水中处理;

E = Temperature conditioning 在恒温的空气中处理;

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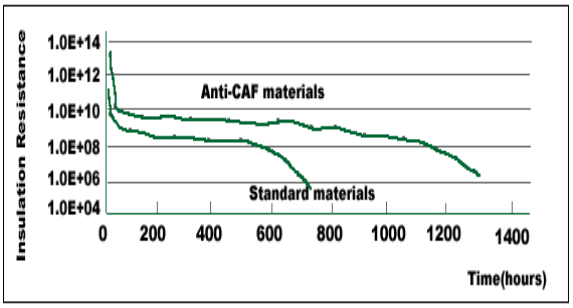
Other data for references 其它数据(仅供参考)

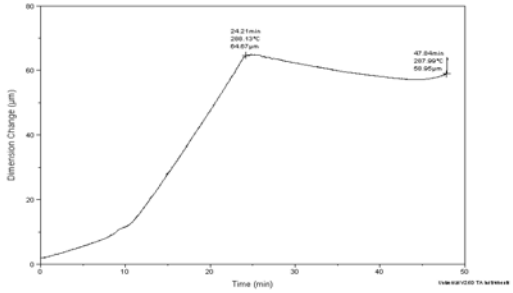
Item		Unit	Typical Value		Item		Unit	Typical Value
Young's modulus	Warp	Million psi	3.5		Poisson's ratio	Warp	--	0.14
	Fill		3.2			Fill		0.13
Tailors modulus	Warp	Million psi	3.3		Tensile strength	Warp	N/mm^2	385
	Fill		2.9			Fill		265

Speciality Chart 板材特性图

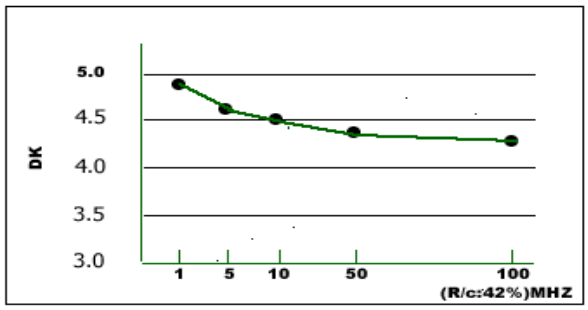
CAF 耐离子迁移



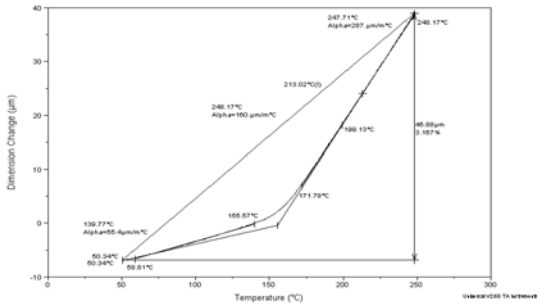
Delamination 分层时间(T-288 test by TMA)



Dielectric constant 介电常数



CTE Z 轴热膨胀系数 (test by TMA)



Applications 应用领域

- Computer, communication equipment, instrument, OA equipment, etc.
  计算机及外围设备、通讯设备、仪器仪表、办公自动设备等

Purchasing Information 采购信息

Base Color 基板颜色	Thicknesses 厚度	Copper Cladding 铜箔厚度	Regular Sizes 常规尺寸
黄色 Yellow	0.05mm ~ 3.2mm	18μm /35μm 70μm /105μm	940*1245mm （37" * 49"） 1042*1245mm （41" * 49"） 1093*1245mm （43" * 49"）

Note: Other sheet sizes and thicknesses could be available upon request.

可根据客户要求提供其它尺寸和厚度.