

## KB-6160/6160A/6160C (ANSI: FR-4)

## 覆铜箔环氧玻纤布层压板

## Features 特点

- 兼容紫外光阻挡及光学自动检查功能,可提高 PCB 生产效率与准确性  
UVB and AOI (automatic optical inspection) compatible, so as to increase productivity and accuracy.
- 优良的耐热性能和机械性能  
Excellent heat resistance and mechanical properties
- 符合 IPC-4101B/21 的规范要求  
IPC-4101B/21 specification is applicable.

## General Properties 一般特性

| Test Item<br>测试项目                | Unit<br>单位        | Test Method<br>(IPC-TM-650)<br>测试方法 | Test Condition<br>处理条件 | Specification<br>(IPC-4101B)<br>规格值 | Typical Value<br>典型值 |
|----------------------------------|-------------------|-------------------------------------|------------------------|-------------------------------------|----------------------|
| Peel Strength (1 oz.)<br>铜箔剥离强度  | N/mm              | 2.4.8                               | 125°C                  | ≥0.70                               | 1.70                 |
|                                  |                   |                                     | Float 288°C / 10 Sec   | ≥1.05                               | 1.75                 |
| Thermal Stress<br>热应力            | Sec               | 2.4.13.1                            | Float 288°C/unetched   | ≥10                                 | 180                  |
| Bow / Twist<br>弯弓度/翘曲度           | %                 | 2.4.22.1                            | A                      | ≤ 1.0                               | 0.17 / 0.35          |
| Flexural Strength<br>抗弯强度        | N/mm <sup>2</sup> | 2.4.4                               | Warp                   | ≥415                                | 565                  |
|                                  |                   |                                     | Fill                   | ≥345                                | 416                  |
| Flammability<br>燃烧性              | Rating            | UL94                                | UL94                   | UL94 V-0                            | V-0                  |
| Glass Transition (Tg)<br>玻璃化转变温度 | °C                | 2.4.25                              | E-2/105 DSC            | ≥130                                | 135                  |
| Surface Resistivity<br>表面电阻      | MΩ                | 2.5.17.1                            | C-96/35/90             | ≥1.0×10 <sup>4</sup>                | 1.0×10 <sup>6</sup>  |
| Volume Resistivity<br>体积电阻       | MΩ-cm             | 2.5.17.1                            | C-96/35/90             | ≥1.0×10 <sup>6</sup>                | 1.0×10 <sup>8</sup>  |
| Dielectric Constant<br>介电常数      | —                 | 2.5.5.2                             | Etched/@1 MHZ          | ≤5.4                                | 4.58                 |
| Loss Tangent<br>介质损耗             | —                 | 2.5.5.2                             | Etched/@1 MHZ          | ≤0.035                              | 0.022                |
| Arc Resistance<br>耐电弧性           | Sec               | 2.5.1                               | D-48/50+D-0.5/23       | ≥60                                 | 125                  |
| Moisture Absorption<br>吸水率       | %                 | 2.6.2.1                             | D-24/23                | ≤0.35(min0.51mm)                    | 0.21                 |
|                                  |                   |                                     |                        | ≤0.80(max0.51mm)                    | 0.19                 |
| Z-Axis Expansion<br>Z-轴热膨胀系数     | ppm/°C            | 2.4.24                              | E-2/105 TMA            | —                                   | 58/286               |
| TD                               | °C                | 2.4.24.6                            | TGA                    | —                                   | 305                  |
| T-260                            | min               | 2.4.24.1                            | TMA                    | —                                   | 20                   |
| T-288                            | min               | 2.4.24.1                            | TMA                    | —                                   | 3                    |

Remarks: Specimen Thickness: 1.6 mm 1/1 样品厚度: 1.6 mm 1/1

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 = Temperature conditioning immersion in distilled water. 浸在恒温的水中处理

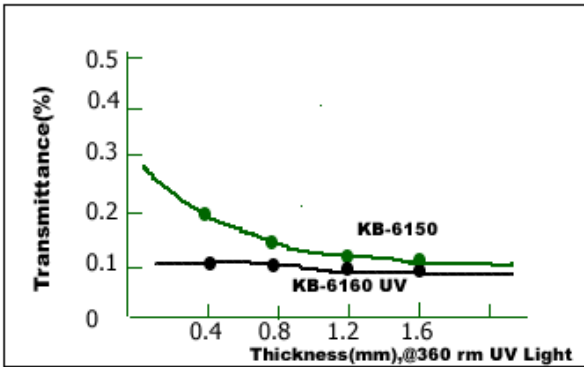
E = Immersing in distilled water with temperature control 在恒温的空气中处理;

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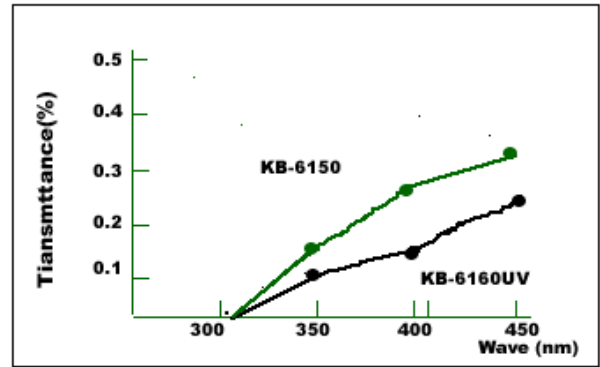
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#### Speciality Chart 板材特性图

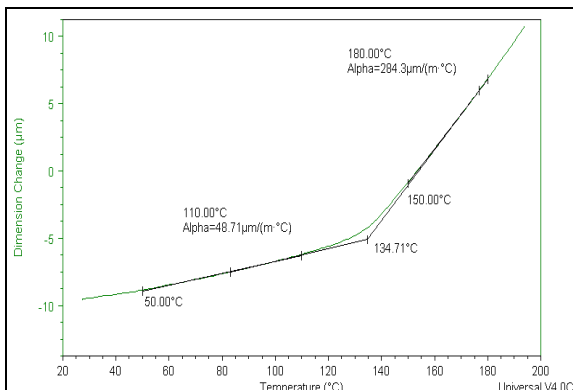
UV blocking (thickness) UV 阻挡



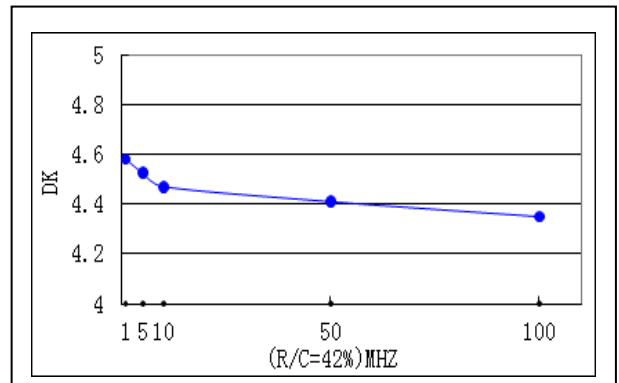
UV blocking (wave / UV-3100)



Thermal expansion of Z-direction (test by TMA)



Dielectric constant 介电常数



#### 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<br>基板颜色 | Thickness<br>厚度   | Copper Cladding<br>铜箔厚度           | Regular Size (mm)<br>常规尺寸  | CTI Value<br>CTI 值                                   |
|--------------------|-------------------|-----------------------------------|--|--|
| 黄色<br>(yellow)     | 0.05mm ~<br>3.5mm | 12µm, 18µm<br>35µm, 70µm<br>105µm | 940*1245mm (37" * 49")<br>1042*1245mm (41" * 49")<br>1093*1245mm (43" * 49") | KB-6160:150V<br>KB-6160A:175V<br>KB-6160C: 300V/600V |

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

可根据客户要求提供其它尺寸和厚度.