

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

Features

- UVB and AOI (automatic optical inspection) compatible, so as to increase productivity and accuracy.
- Excellent heat resistance and mechanical properties
- IPC-4101C/21 specification is applicable.

General Properties

Test Item	Unit	Test Method (IPC-TM-650)	Test Condition	Specification (IPC-4101C)	Typical Value
Peel Strength (1 oz.)	N/mm	2.4.8	125 ℃	≥0.70	1.70
			Float 288 ℃ / 10 Sec	≥1.05	1.75
Thermal Stress	Sec	2.4.13.1	Float288 ℃/unetched	≥10	180
Bow / Twist	%	2.4.22.1	A	≤ 1.0	0.17 / 0.35
Flexural Strength	N/mm ²	2.4.4	Warp	≥415	565
			Fill	≥345	416
Flammability	Rating	UL94	UL94	UL94 V-0	V-0
Glass Transition (Tg)	℃	2.4.25	E-2/105 DSC	≥130	135
Surface Resistivity	MΩ	2.5.17.1	C-96/35/90	≥1.0×10 ⁴	1.0×10 ⁶
Volume Resistivity	MΩ-cm	2.5.17.1	C-96/35/90	≥1.0×10 ⁶	1.0×10 ⁸
Dielectric Breakdown	kV	2.5.6	D-48/50+D0.5/23	≥40	69
Dielectric Strength	kV/mm	2.5.6.2	D-48/50+D0.5/23	≥29	41
Dielectric Constant	—	2.5.5.2	Etched/@1 MHZ	≤5.4	4.58
Loss Tangent	—	2.5.5.2	Etched/@1 MHZ	≤0.035	0.022
Arc Resistance	Sec	2.5.1	D-48/50+D-0.5/23	≥60	125
Moisture Absorption	%	2.6.2.1	D-24/23	≤0.35(min0.51mm)	0.21
				≤0.80(max0.51mm)	0.19
Z-Axis Expansion	ppm/ ℃	2.4.24	E-2/105 TMA	—	58/286
TD	℃	2.4.24.6	TGA	—	305
T-260	min	2.4.24.1	TMA	—	10

Remarks: Typical values for reference only

Specimen Thickness: 1.6 mm 1/10Z

A = Keep the specimen originally without any process

C = Temperature and humidity conditioning

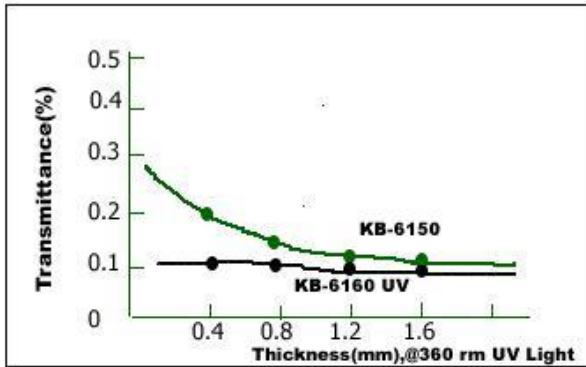
D = Temperature conditioning immersion in distilled water.

E = Immersing in distilled water with temperature control

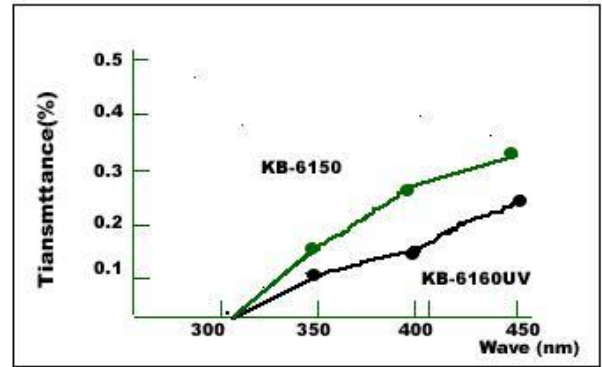
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Speciality Chart

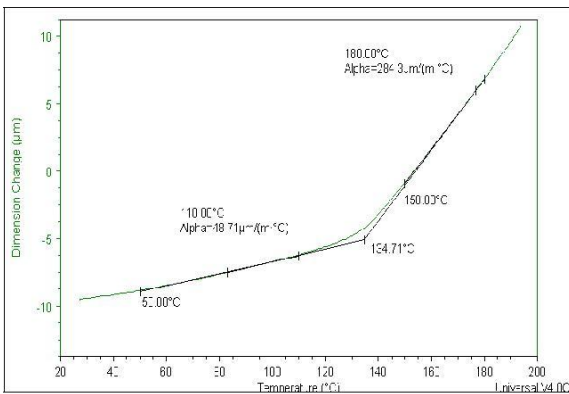
UV blocking (thickness) UV



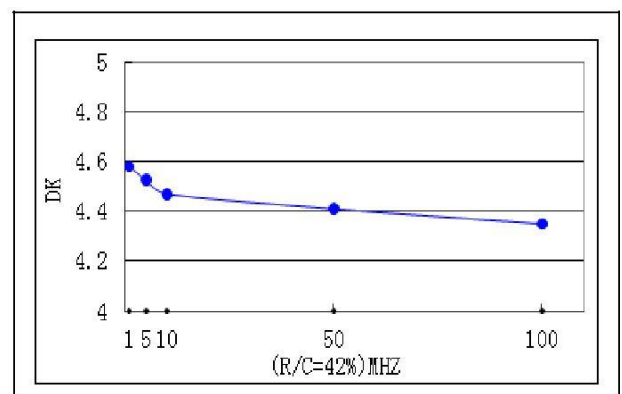
UV blocking (wave / UV-3100)



Thermal expansion of Z-direction (test by TMA)



Dielectric constant



Applications

- Computer, communication equipment, instrument, OA equipment, etc.

Purchasing Information

Base Color	Thickness	Copper Cladding	Regular Size (mm)	CTI Value
(yellow)	0.05mm ~ 3.5mm	12µm, 18µm 35µm, 70µm 105µm	915*1220mm (36"*48") 1020*1220mm (40"*48") 1067*1220mm (42"*48")	KB-6160:175V KB-6160A:175V KB-6160C: 300V/600V

Note: 1) Other sheet size and thickness could be available upon request.

2) Speciality chart for reference only.

3) Version updates without notice.

