

## Kingboard Copper Clad Laminate

### KB6160A

Kingboard KB6160A is an excellent value laminate for standard double sided PWB manufacture. This material meets the IPC 4101/21 slash sheet and has excellent UVB to prevent light transfer during imaging. Mechanical and heat resistance properties are ideally suited for manufacturing reliable quality rigid PWB's.

### KB6167F

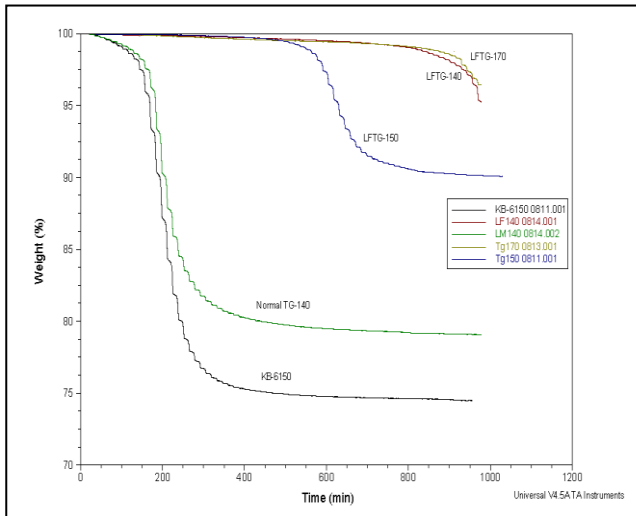
Superior thermal and mechanical properties. KB6167F is a filled, lead-free compatible material that is capable of withstanding multiple reflow cycles. The Primary slash sheet is IPC4101/126. The secondary slash sheets are IPC4101/21/24/26/97/99/101/124. KB61657F is an ideal choice when value and quality are key in a highly competitive industry.

Technical Data Sheet						
Property		Units	Test Method	Condition	KB6160A	KB6167F
THERMAL	Glass Transition Temp	°C	DSC	As received	135	175
	Thermal Decomposition Temp	°C	TGA	As received	305	350
	CTE ( $\alpha_1$ ) Z-axis	ppm/°C	IPC-TM-650 2.4.24	<Tg	58	49
	CTE ( $\alpha_2$ ) Z-axis	ppm/°C	IPC-TM-650 2.4.2	>Tg	286	206
	Time to Delam - T260 - T288 - T300	min	IPC TM-650 2.4.24.1	As received	10 - -	>120 32.3 14.9
ELECTRICAL	Volume Resistivity	MΩ-cm	IPC TM-650 2.5.17.1	C-96/35/90	1x10 <sup>8</sup>	3x10 <sup>10</sup>
	Surface Resistivity	MΩ	IPC TM-650 2.5.17.1	C-95/35/90	1x10 <sup>8</sup>	2.9x10 <sup>7</sup>
	Dielectric Constant (Dk)	%	IPC TM-650 2.5.5.2	C-24/23/50	4.58	4.5
	Dissipation Factor (Df)	kN/m	IPC TM-650 2.5.5.3	C-40/23/50	0.022	0.017
PHYSICAL	Moisture Absorption	%	IPC TM-650 2.6.2.1	D-24/23	0.21	0.080
	Peel Strength 1 oz (35 μm)	N/mm	IPC TM-650 2.4.8	As Received	1.7	1.13
	Flammability	Rating	UL94	C-48/23/50	UL94V-0	UL94V-0

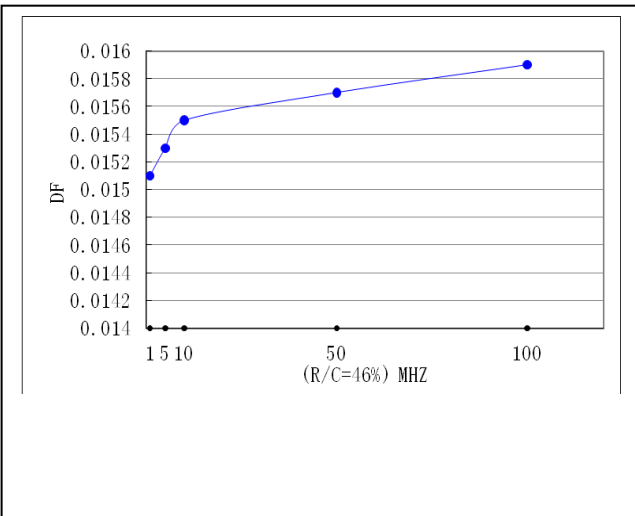


### KB6167F - Material Test Data

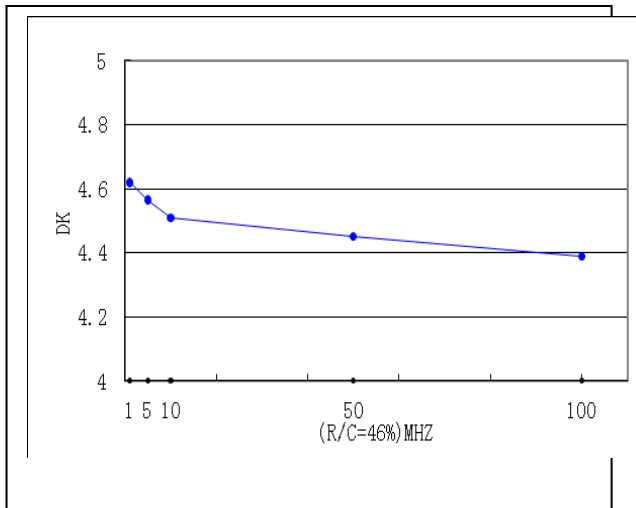
Thermal Cycling



Dissipation Factor



Dielectric constant



Moisture Absorption %

