

DS-1107

(ANSI : FR-1)

COPPER CLAD LAMINATES

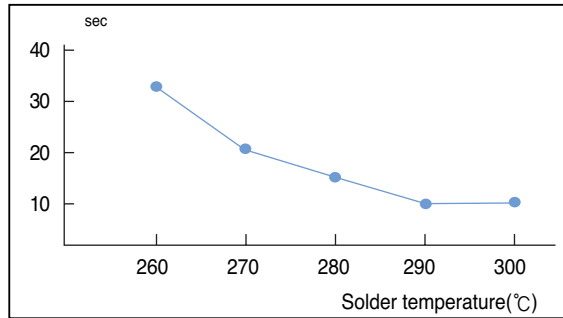
FEATURES

- Excellent punchability.
- Flame retardant material.
- Minimum warpage and dimensional variation.

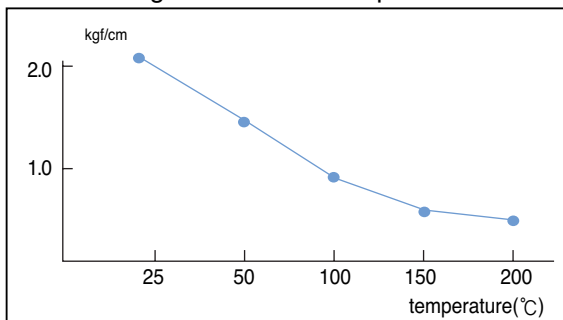
APPLICATIONS

Color TV, Monitor, VCR, CDP, Radio, Component stereo, etc.,

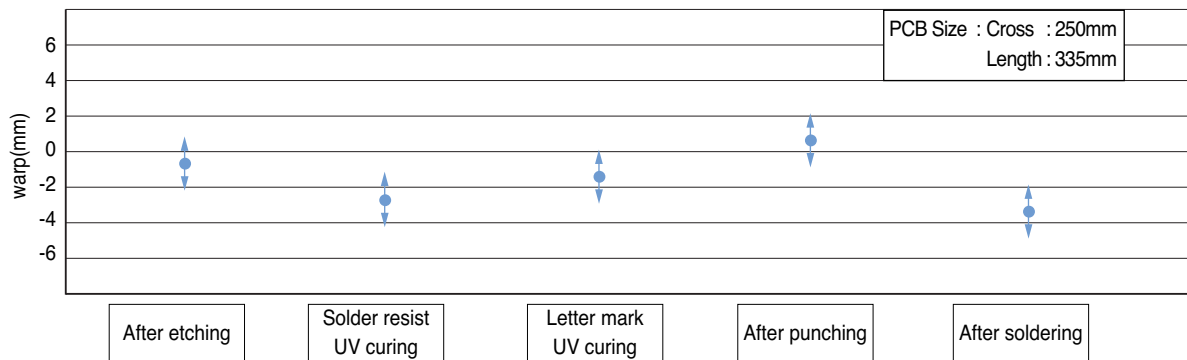
■ Solder resistance at elevated temperature



■ Peel strength at elevated temperature



■ Warpage through PCB process (thickness 1.6mm single side)

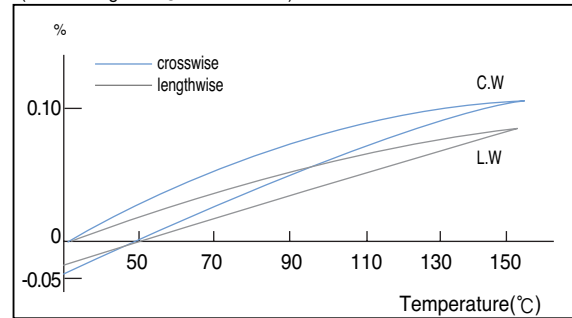


INTERNATIONAL STANDARD RECOGNITION

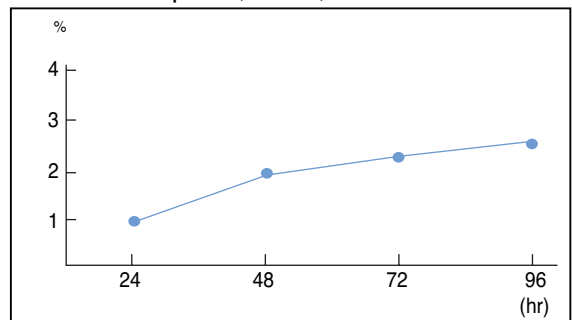
- UL : E103670
- CSA : LS-93237
- BSI : 6741
- VDE : VDE-Reg-Nr. 4158
- JET : V-0033

■ Thermal expansion and shrinkage

(after treating : 140°C 10Min 3times)



■ Water absorption (c-x/60/95)



COPPER CLAD LAMINATES

GENERAL PROPERTIES

Test Item	Unit	Treatment Condition	Designation	DS-1107	
			ANSI Grade	FR-1	
			Property Data		
			Standard Value	Guaranteed Value	
Flammability	sec	UL 94	avg : 3.5 max : 8	avg : 5.0 max : 10	
Insulation Resistance	ohm	C-96/20/65 C-96/20/65+D-2/100	5×10^{11} - 5×10^{12} 5×10^7 - 5×10^8	above 1×10^9 above 1×10^7	
Volume Resistivity	ohm-cm	C-96/20/65 C-96/20/65+C-96/40/90	1×10^{13} - 1×10^{14} 5×10^{12} - 5×10^{13}	above 5×10^{10} above 5×10^9	
Surface Resistance	Adhesive Surface	ohm	C-96/20/65 C-96/20/65+C-96/40/90	1×10^{11} - 1×10^{12} 1×10^{10} - 1×10^{11}	above 1×10^{10} above 5×10^9
	Laminate Surface	ohm	C-96/20/65 C-96/20/65+C-96/40/90	5×10^{10} - 5×10^{11} 1×10^9 - 1×10^{10}	above 1×10^9 above 1×10^8
Dielectric Constant (1 MHz)	-	C-96/20/65 C-96/20/65+D-48/50	4.5 - 5.0 5.0 - 5.5	less than 5.5 less than 6.0	
Dissipation Factor (1 MHz)	-	C-96/20/65 C-96/20/65+D-48/50	0.020 - 0.030 0.025 - 0.035	less than 0.050 less than 0.060	
Solder Float(260 °C)	sec	A	30 - 40	above 15	
Peel Strength	Cu.Foil 1 oz (0.035mm)	kgf/cm	A	1.8 - 2.3	above 1.42
			S	1.8 - 2.3	above 1.42
Flexural Strength(LW)(CW)	kgf/mm ²	A	16 - 19 15 - 18	above 8.16 above 8.16	
Water absorption	%	E-24/50+D-24/23	0.8 - 1.0	less than 1.5	
Trichloroethylene Resistance	-	Immersion in boiling Trichloroethylene (For 2 minutes)	No abnormality	No abnormality	
Punching Processability		A	Suitable Temperature 50 °C - 70 °C		

Specimen Thickness : 1.6mm

PURCHASING INFORMATION

- Copper foil : 1 oz/ft²(0.035 mm) copper foil as standard
- Thickness : 0.6mm to 3.2mm

Standard Size	Tolerance(mm)
1,020 × 1,020mm (40" × 40")	+3
1,020 × 1,220mm (40" × 48")	-0
1,070 × 1,160mm (42" × 45.6")	

※ Other sheet size and thickness could be available upon request.