

DNC/DNCRA

Characteristics

1. A very thin polyimide base film of 12.5 μm also available.
2. Least limpness.
3. Excellent transparency.
4. Excellent in heat resistance, peeling strength and less discoloration of adhesive for a long period of time.
5. Excellent humidity resistance less deterioration in peeling strength and insulation after a pressure cooker test.

Specifications for Standard Products

Copper foil		Electrolytic Copper foil	Rolled copper foil
Thickness of foil(μm)		18,35	18,35
Thickness of adhesive layer(μm)		10	
Thickness of base film (μm)		12.5,25	
Standard size(mm)	Single sided copper clad laminate	250/500mmxRoll (100m)	
	Double sided copper clad laminate	250/500mmxRoll (50m)	

UL Recognition(File No.E46785)

Flammability class	94V-0 94VTM-0
Solder temp resistance	280 10se c
Rated temperature	105

□ Examples of Characteristic Properties of DNC/DNCRA

Test Item	Unit	Treatment conditions	Properties		Test methods
			PI film 12.5μm Rolled copper foil 18μm	PI film 25μm Rolled copper foil 35μm	
Insulation resistance	Ω	C-90/20/65	1.0x10 ¹⁴		〔 JIS-C-6471 〕 IPC-FC-241B for test patterns
		+96/40/90	8.0x10 ¹³		
Surface resistance	Ω	C-90/20/65	1.0x10 ¹⁵		JIS-C-6481
		+96/40/90	8.0x10 ¹⁴		
Volume resistance	Ω-cm	C-90/20/65	5.0x10 ¹⁵	5.0x10 ¹⁵	JIS-C-6471
		+96/40/90	3.0x10 ¹⁵	4.0x10 ¹⁵	
Withstand voltage Perpendicular to laminations	KV/mm	A	235	225	JIS-C-2120
		D-48/50	205	210	
Dielectric constant(1MHz)	-	A	3.2	3.1	JIS-C-6471
		D-24/23	3.4	3.2	
Dissipation factor(1MHz)	-	A	0.028	0.023	JIS-C-6471
		D-24/23	0.030	0.025	
Peel strength	K/mm	A	0.9	1.0	IPC-FC-241B
		E-1/200	0.9	1.0	

Solder temp resistance	-	A	300/30sec		IPC-FC-241B
Resistance to heat aging	-	A	No change in appearance E-1/200 treatment		JIS-C-6481
Chemical resistance		A	No change in appearance after immersion separately for 15min at room temp.in following chemicals Toluene, MEK, Methyl alcohol,Trichlor ethylene,10%HC1,10%KCH,10% NaOH		IPC-FC-241B
Water absorption	%	D- 24/50+D24/23	1.5	2.0	JIS-C-6481
Dimensional Stability	%	E-0.5 length-wise	-0.07	-0.06	IPC-FC-241B
		150 cross-wise	-0.04	-0.05	
Flexural resistance 2.0mmR	cycle	length-wise	8500	2800	JIS-C-6471
		cross-wise	6200	2600	