

Nan Ya copper clad laminates properties(南亞覆銅箔層壓板的性能)

Model(型號)	NP-140	NP-140M	NP-150	NP-170	NP-180	NP-180F	NP-200	NPG	NPG-170	NPG-180
Flame retardant(阻燃)	Halogen(鹵素)						Halogen free(無鹵)			
DSC Tg	140	135	148	173	180	180	195	150	170	-
TMA Tg	130	130	139	162	170	170	185	140	160	180
DMA Tg	140	140	150	180	195	195	205	160	180	210
α 1 ppm/°C	55	55	55	50	50	34	45	35	35	32
α 2 ppm/°C	280	280	280	275	255	165	250	210	210	160
CTE (X,Yaxis) 熱膨脹係數 (X, Y軸)	15-18	15-18	15-18	14-16	14-16	11-13	14-16	11-13	11-13	11-13
Peel (loz)	11-13	10-12	9-11	9-11	7-9	7-9	9-11	7-9	7-9	7-9
0.5hr PCT Water absorption (0.5小時PCT吸水率)	0.0023	0.0021	0.0023	0.002	0.0018	0.0015	0.0017	0.0029	0.0021	0.0015
0.5hr PCT+288°Csolder dipping (sec) (0.5小時PCT+288°Csolder浸漬 (秒))	200 ↑	400 ↑	200	240	600 ↑	600 ↑	600 ↑	240	240	600 ↑
T-260 min	15	>30	15	17	>60	>60	>60	>60	>60	>60
T-288 min	3	>5	3	3	>40	>40	>20	>20	>20	>60
Td°C(5%Loss)10°C/min (TD°C(5%損耗) 10°C /分鐘)	311	325	312	314	359	373	345	348	355	380
Dk 1GHz	4.2	4.22	4.26	4.22	4.36	4.45	4	4.29	4.3	4.8
Df 1GHz	0.015	0.015	0.015	0.013	0.019	0.014	0.013	0.012	0.012	0.016
Sample thickness:0.80mm					(樣品厚度：0.80毫米)					

* The detail properties shown as the NAN YA COPPER CLAD LAMINATES data sheet *詳細性能數據表顯示為南亞覆銅箔層壓板