

PCB LAMINATE MATERIAL PROPERTIES GUIDE

Laminate	Type	Tg Celsius	Td Celsius	T-260 Minutes	T-288 Minutes	Dk	Df	UL94
Aluminum Clad						@ 1 MHz	@ 1 MHz	
		130	380			4.8	0.016	V0
Isola						1 GHz	1 GHz	
370HR	FR4 / Phenolic	180	340	60	30	4.04 @ 2 GHz	0.021 @ 2 GHz	V0
185HR	FR4 / Phenolic	180	340	60	>15	4.01 @ 2 GHz	0.0200 @ 2 GHz	V0
ED130UV	FR4	135		10		4.34	0.016	V0
FR406	FR4 High Temp	170	300	10	>2	3.95	0.0161	V0
408HR	FR4	190	360	60	>30	3.69	0.0091	V0
IS620i	Modified Epoxy	225	364	60	>20	3.58	0.0059	V0
P95	Polyimide	260	416	60	60	3.78	0.0172	HB
P96	Polyimide	260	396	60	60	3.78	0.0172	V0
Nelco						1 GHz	2.5 GHz	
N4000-6	FR4 High Temp	175	325	4-8		4.0 @ 2.5 GHz	0.022	V0
N4000-11	Modified Epoxy	175	345	30		4.1	0.02	V0
N4000-12	Modified Epoxy	190	350	>60		3.7	0.008	V0
N4000-13	Modified Epoxy	210 - 240	350	>30	>10	3.7	0.009	V0
N4000-13 SI/EP	Modified Epoxy	210 - 240	350	>30	>10	3.7	0.009	V0
N4000-29	FR4 High Temp	175 - 185	350	>60	15	4.3	0.015	V0
Arlon						1 MHz	1 MHz	
85N	Cer/Glass	250	407	>60	>60	4.2	0.01	HB
Rogers						8-40 GHz	10 GHz	
RT/duroid 5880	PTFE / Glass		500			2.2	0.0009	V0
RT/duroid 5870	PTFE / Microfiber		500			2.33	0.0012	V0
RT/duroid 6002	Cer/PTFE		500			2.94	0.0012	V0
RT/duroid 6006	Cer/PTFE		500			6.45	0.0027 @ 10 GHz/A	V0
RT/duroid 6010	Cer/PTFE		500			10.7	0.0023 @ 10 GHz/A	V0
3003	Cer/PTFE		500			3	0.001	V0
3006	Cer/PTFE		500			6.5	0.002	V0
3010	Cer/PTFE		500			11.2	0.0022	V0
3203	Cer/PTFE		500			3.02	0.0016	V0
3210	Cer/PTFE		500			10.8	0.0027	V0
4003C	Hydrocarbon/Cer	>280	425			3.55	0.0027	N/A
4350B	Hydrocarbon/Cer	>280	390			3.66	0.0037	V0
4450B	Hydrocarbon/Cer	>280	390			3.3 ± 0.05 @ 10 GHz	0.004	V0

THE INFORMATION ON THIS SHEET IS INTENDED AS A GUIDE ONLY. PLEASE REFER TO THE LAMINATE VENDORS' LATEST DATASHEET FOR MORE INFORMATION. SUBJECT TO CHANGE WITHOUT NOTIFICATION.

Laminate	Type	Tg Celsius	Td Celsius	T-260 Minutes	T-288 Minutes	Dk	Df	UL94
Taconic						10 GHz	10 GHz	
TLC	PTFE / Glass					3.2	0.003	V0
TLE	PTFE / Glass					2.95	0.0028	V0
TLT	PTFE / Glass					2.5 @ 1 MHz	0.0006 @ 1 MHz	V0
TLX	PTFE / Glass		553			2.55	0.0012 @ 1.9 GHz	V0