



N4000-13 - Dielectric Properties Table

LAMINATE:

Thickness (inch)	&	Tol.	Construction					RC%	Nominal Thickness (inch)	Nominal Thickness (µm)	1 GHz Dk	2 GHz Dk	2 GHz Df	10 GHz Dk	10 GHz Df
0.0020	±	0.0005	1	106				72%	0.0023	59	3.25	3.24	0.0085	3.20	0.0094
0.0025	±	0.0005	1	1080				57%	0.0027	67	3.56	3.51	0.0081	3.49	0.0090
0.0030	±	0.0005	1	1080				61%	0.0030	75	3.47	3.44	0.0082	3.41	0.0091
0.0035	±	0.0005	1	2113				49%	0.0035	88	3.78	3.71	0.0078	3.70	0.0087
0.0035	±	0.0005	1	106	+	1	106	65%	0.0036	91	3.38	3.36	0.0083	3.32	0.0092
0.0040	±	0.0005	1	1080	+	1	106	59%	0.0042	107	3.52	3.48	0.0081	3.46	0.0090
0.0040	±	0.0005	1	2113				54%	0.0040	102	3.64	3.58	0.0080	3.56	0.0089
0.0040	±	0.0005	1	2116				44%	0.0041	103	3.92	3.84	0.0076	3.83	0.0085
0.0045	±	0.0005	2	1080				51%	0.0044	113	3.71	3.65	0.0079	3.63	0.0088
0.0050	±	0.0007	1	1080	+	1	1080	54%	0.0049	124	3.63	3.58	0.0080	3.55	0.0089
0.0050	±	0.0007	1	2113	+	1	106	53%	0.0050	128	3.67	3.62	0.0079	3.60	0.0088
0.0050	±	0.0007	1	1080	+	1	106	64%	0.0050	126	3.41	3.39	0.0083	3.35	0.0092
0.0060	±	0.0007	1	1080	+	1	2113	52%	0.0061	155	3.68	3.62	0.0079	3.60	0.0088
0.0060	±	0.0007	2	1080				61%	0.0059	150	3.47	3.44	0.0082	3.41	0.0091
0.0060	±	0.0007	2	2113				44%	0.0061	155	3.92	3.84	0.0076	3.83	0.0085
0.0070	±	0.0010	2	2113				49%	0.0069	176	3.78	3.71	0.0078	3.70	0.0087
0.0080	±	0.0010	2	2116				44%	0.0081	207	3.92	3.84	0.0076	3.83	0.0085
0.0100	±	0.0010	2	2116				53%	0.0104	263	3.66	3.61	0.0079	3.59	0.0088
0.0120	±	0.0015	2	1080	+	1	7628	45%	0.0121	307	3.88	3.80	0.0077	3.79	0.0085



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LAMINATE (continued):

Thickness (inch)	&	Tol.	Construction					RC%	Nominal Thickness (inch)	Nominal Thickness (µm)	1 GHz Dk	2 GHz Dk	2 GHz Df	10 GHz Dk	10 GHz Df
0.0140	±	0.0015	2	2113	+	1	7628	43%	0.0140	355	3.93	3.85	0.0076	3.84	0.0085
0.0140	±	0.0015	2	7628				39%	0.0141	359	4.09	3.99	0.0074	3.99	0.0082
0.0160	±	0.0015	2	2116	+	1	7628	43%	0.0158	401	3.95	3.86	0.0076	3.86	0.0084
0.0180	±	0.0015	2	7628	+	1	2113	43%	0.0187	476	3.94	3.86	0.0076	3.85	0.0085
0.0200	±	0.0025	2	2113	+	2	7628	42%	0.0214	543	3.96	3.87	0.0076	3.87	0.0084
0.0390	±	0.0040	2	1080	+	5	7628	40%	0.0397	1009	4.04	3.95	0.0075	3.95	0.0083



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PREPREG:

Glass	RC%	Thickness (inches)	Thickness (µm)	1 GHz Dk	2 GHz Dk	2 GHz Df	10 GHz Dk	10 GHz Df
106	68.4%	0.0020	51	3.32	3.30	0.0084	3.26	0.0093
106	75%	0.0026	66	3.20	3.19	0.0085	3.15	0.0095
1080	65%	0.0034	86	3.39	3.37	0.0083	3.33	0.0092
1080	70%	0.0041	103	3.29	3.28	0.0084	3.24	0.0094
2113	57%	0.0044	111	3.57	3.52	0.0081	3.50	0.0090
2116	54%	0.0053	135	3.64	3.59	0.0080	3.56	0.0089
7628	44%	0.0080	204	3.91	3.83	0.0076	3.82	0.0085

These laminate and prepreg items are representative of available materials. These items and their associated values may not be regularly available and additional lead times or minimum order quantities could apply. Please contact our office or your local technical representative for assistance with choosing the best material for your design and application.

For More Information:

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