



N4000-13EP - 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
0.0030	±	0.0005	1	2113				44%	0.0031	78	3.91	3.83	0.0076	3.82	0.0085
0.0035	±	0.0005	1	2113				49%	0.0035	88	3.78	3.71	0.0078	3.69	0.0087
0.0035	±	0.0005	1	106	+	1	106	68%	0.0039	98	3.34	3.32	0.0084	3.28	0.0093
0.0040	±	0.0005	1	106	+	1	106	68%	0.0039	98	3.34	3.32	0.0084	3.28	0.0093
0.0040	±	0.0005	1	1080	+	1	106	59%	0.0042	107	3.52	3.49	0.0081	3.46	0.0090
0.0040	±	0.0005	1	2116				44%	0.0041	105	3.90	3.82	0.0076	3.82	0.0085
0.0040	±	0.0005	1	2113				55%	0.0041	105	3.61	3.56	0.0080	3.54	0.0089
0.0045	±	0.0005	2	1080				51%	0.0044	113	3.71	3.65	0.0079	3.63	0.0088
0.0050	±	0.0007	2	1080				57%	0.0053	135	3.56	3.51	0.0081	3.49	0.0090
0.0050	±	0.0007	1	2113	+	1	106	55%	0.0054	137	3.62	3.57	0.0080	3.54	0.0089
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%	0.0062	156	3.91	3.83	0.0076	3.82	0.0085
0.0070	±	0.0010	2	2113				49%	0.0069	176	3.78	3.71	0.0078	3.69	0.0087
0.0080	±	0.0010	2	2116				44%	0.0082	209	3.90	3.82	0.0076	3.82	0.0085
0.0100	±	0.0010	2	2116				54%	0.0105	267	3.65	3.60	0.0080	3.58	0.0089
0.0120	±	0.0015	2	1080	+	1	7628	46%	0.0124	316	3.84	3.77	0.0077	3.76	0.0086



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LAMINATE (continued):

Thickness (inch)	&	Tol.	Construction						RC%	Nominal Thickness (inch)	Nominal Thickness (μ m)	1 GHz Dk	2 GHz Dk	2 GHz Df	10 GHz Dk	10 GHz Df
			2	2113	+	1	7628									
0.0140	±	0.0015	2	2113	+	1	7628	45%	0.0146	372	3.87	3.80	0.0077	3.79	0.0085	
0.0140	±	0.0015	2	7628				39%	0.0143	362	4.07	3.97	0.0074	3.98	0.0083	
0.0160	±	0.0015	2	7628	+	1	1080	41%	0.0165	418	4.02	3.93	0.0075	3.93	0.0083	
0.0160	±	0.0015	2	2116	+	1	7628	43%	0.0159	405	3.93	3.85	0.0076	3.85	0.0085	
0.0180	±	0.0015	2	7628	+	1	2113	42%	0.0184	467	3.96	3.88	0.0076	3.87	0.0084	
0.0200	±	0.0025	3	7628				39%	0.0214	543	4.07	3.97	0.0074	3.98	0.0083	
0.0240	±	0.0025	2	2116	+	2	7628	45%	0.0248	629	3.89	3.81	0.0077	3.80	0.0085	
0.0280	±	0.0025	4	7628				39%	0.0285	724	4.07	3.97	0.0074	3.98	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	72.2%	0.0023	59	3.25	3.24	0.0085	3.20	0.0094
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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