

Dielectric Constant (DK) / Dissipation Factor (DF) Table

Core Data

Construction	Resin Content %	Thickness (inch)	Thickness (mm)	Dielectric Constant (DK) / Dissipation Factor (DF)					
				100 MHz	500 MHz	1 Ghz	2 GHz	5 GHz	10 GHz
106 x 1	71.00%	0.002	0.050	3.90 0.0172	3.83 0.0177	3.83 0.0182	3.81 0.0195	3.75 0.0211	3.74 0.0218
1080 x 1	58.00%	0.0025	0.064	4.12 0.0155	4.05 0.016	4.05 0.0166	4.01 0.0175	3.96 0.019	3.94 0.0198
1080 x 1	64.00%	0.003	0.075	4.01 0.0163	3.93 0.0168	3.93 0.0173	3.90 0.0184	3.85 0.02	3.84 0.0207
106 x 2	63.00%	0.003	0.075	4.02 0.0162	3.95 0.0167	3.95 0.0172	3.92 0.0183	3.86 0.0198	3.85 0.0206
2113 x 1	52.00%	0.0035	0.089	4.27 0.0147	4.20 0.0153	4.20 0.0158	4.15 0.0166	4.11 0.0181	4.08 0.0189
3313 x 1	50.00%	0.0035	0.089	4.32 0.0145	4.26 0.015	4.25 0.0156	4.21 0.0163	4.17 0.0178	4.13 0.0186
106 x 2	67.00%	0.0035	0.089	3.96 0.0167	3.88 0.0172	3.88 0.0177	3.85 0.0189	3.80 0.0205	3.79 0.0212
2113 x 1	57.00%	0.004	0.100	4.15 0.0154	4.08 0.0159	4.08 0.0164	4.03 0.0173	3.99 0.0189	3.97 0.0197
3313 x 1	55.00%	0.004	0.100	4.19 0.0151	4.12 0.0156	4.12 0.0162	4.08 0.017	4.03 0.0185	4.01 0.0194
106 x 2	71.00%	0.004	0.100	3.90 0.0172	3.83 0.0177	3.83 0.0182	3.81 0.0195	3.75 0.0211	3.74 0.0218
2116 x 1	50.00%	0.0045	0.114	4.32 0.0145	4.26 0.015	4.25 0.0156	4.21 0.0163	4.17 0.0178	4.13 0.0186
1080 x 2	55.00%	0.0045	0.114	4.19 0.0151	4.12 0.0156	4.12 0.0162	4.08 0.017	4.03 0.0185	4.01 0.0194

Construction	Resin Content %	Thickness (inch)	Thickness (mm)	Dielectric Constant (DK) / Dissipation Factor (DF)					
				100 MHz	500 MHz	1 Ghz	2 GHz	5 GHz	10 GHz
1652 x 1	43.00%	0.005	0.125	4.53 0.0135	4.48 0.0141	4.47 0.0147	4.42 0.0152	4.39 0.0166	4.34 0.0175
2116 x 1	54.00%	0.005	0.125	4.22 0.015	4.15 0.0155	4.15 0.0161	4.10 0.0169	4.06 0.0184	4.03 0.0192
1080 x 2	58.00%	0.005	0.125	4.12 0.0155	4.05 0.016	4.05 0.0166	4.01 0.0175	3.96 0.019	3.94 0.0198
1652 x 1	47.00%	0.0055	0.140	4.41 0.0141	4.35 0.0146	4.34 0.0152	4.30 0.0158	4.25 0.0173	4.22 0.0181
1501 x 1	43.00%	0.006	0.150	4.53 0.0135	4.48 0.0141	4.47 0.0147	4.42 0.0152	4.39 0.0166	4.34 0.0175
1080 x 2	64.00%	0.006	0.150	4.01 0.0163	3.93 0.0168	3.93 0.0173	3.90 0.0184	3.85 0.02	3.84 0.0207
1501 x 1	47.00%	0.0065	0.165	4.41 0.0141	4.35 0.0146	4.34 0.0152	4.30 0.0158	4.25 0.0173	4.22 0.0181
7628L x 1	41.00%	0.007	0.175	4.60 0.0133	4.55 0.0138	4.54 0.0144	4.49 0.0148	4.46 0.0163	4.41 0.0172
2113 x 2	52.00%	0.007	0.175	4.27 0.0147	4.20 0.0153	4.20 0.0158	4.15 0.0166	4.11 0.0181	4.08 0.0189
7628L(HRC) x 1	44.00%	0.0075	0.190	4.50 0.0137	4.45 0.0142	4.44 0.0148	4.39 0.0153	4.35 0.0168	4.31 0.0177
7628L(SRC) x 1	47.00%	0.008	0.200	4.41 0.0141	4.35 0.0146	4.34 0.0152	4.30 0.0158	4.25 0.0173	4.22 0.0181
7628M x 1	46.00%	0.008	0.200	4.44 0.0139	4.38 0.0145	4.37 0.015	4.33 0.0156	4.29 0.0171	4.25 0.018
3313 x 2	55.00%	0.008	0.200	4.19 0.0151	4.12 0.0156	4.12 0.0162	4.08 0.017	4.03 0.0185	4.01 0.0194
7628M(HRC) x 1	48.00%	0.0085	0.215	4.38 0.0142	4.32 0.0147	4.31 0.0153	4.27 0.0159	4.22 0.0174	4.19 0.0183
2116 x 2	50.00%	0.009	0.225	4.32 0.0145	4.26 0.015	4.25 0.0156	4.21 0.0163	4.17 0.0178	4.13 0.0186
1652 x 2	43.00%	0.01	0.250	4.53 0.0135	4.48 0.0141	4.47 0.0147	4.42 0.0152	4.39 0.0166	4.34 0.0175

Construction	Resin Content %	Thickness (inch)	Thickness (mm)	Dielectric Constant (DK) / Dissipation Factor (DF)					
				100 MHz	500 MHz	1 GHz	2 GHz	5 GHz	10 GHz
2116 x 2	54.00%	0.01	0.250	4.22 0.015	4.15 0.0155	4.15 0.0161	4.10 0.0169	4.06 0.0184	4.03 0.0192
1652 x 2	47.00%	0.011	0.280	4.41 0.0141	4.35 0.0146	4.34 0.0152	4.30 0.0158	4.25 0.0173	4.22 0.0181
1501 x 2	43.00%	0.012	0.300	4.53 0.0135	4.48 0.0141	4.47 0.0147	4.42 0.0152	4.39 0.0166	4.34 0.0175
1501 x 2	47.00%	0.013	0.330	4.41 0.0141	4.35 0.0146	4.34 0.0152	4.30 0.0158	4.25 0.0173	4.22 0.0181
7628L x 2	41.00%	0.014	0.360	4.60 0.0133	4.55 0.0138	4.54 0.0144	4.49 0.0148	4.46 0.0163	4.41 0.0172
7628L (HRC) x 2	44.00%	0.015	0.380	4.50 0.0137	4.45 0.0142	4.44 0.0148	4.39 0.0153	4.35 0.0168	4.31 0.0177
7628M x 2	46.00%	0.016	0.410	4.44 0.0139	4.38 0.0145	4.37 0.015	4.33 0.0156	4.29 0.0171	4.25 0.018
7628M x 2 + 1080 x 1	52.00%	0.018	0.460	4.27 0.0147	4.20 0.0153	4.20 0.0158	4.15 0.0166	4.11 0.0181	4.08 0.0189
7628M x 2 + 2116 x 1	47.30%	0.02	0.500	4.40 0.0141	4.34 0.0147	4.33 0.0152	4.29 0.0158	4.24 0.0173	4.21 0.0182
7628L x 3	41.00%	0.021	0.540	4.60 0.0133	4.55 0.0138	4.54 0.0144	4.49 0.0148	4.46 0.0163	4.41 0.0172
7628L x 3	44.00%	0.022	0.558	4.50 0.0137	4.45 0.0142	4.44 0.0148	4.39 0.0153	4.35 0.0168	4.31 0.0177
7628L(SRC) x 3	47.00%	0.024	0.610	4.41 0.0141	4.35 0.0146	4.34 0.0152	4.30 0.0158	4.25 0.0173	4.22 0.0181
7628M x 3	46.00%	0.024	0.610	4.44 0.0139	4.38 0.0145	4.37 0.015	4.33 0.0156	4.29 0.0171	4.25 0.018
7628L x 3 + 1080 x 2	50.20%	0.026	0.660	4.32 0.0145	4.25 0.015	4.25 0.0156	4.20 0.0163	4.16 0.0178	4.13 0.0186
7628L x 2 + 7628L (HRC) x 2	42.50%	0.028	0.710	4.55 0.0135	4.50 0.014	4.49 0.0146	4.44 0.0151	4.40 0.0166	4.36 0.0175
7628L(HRC) x 2 + 7628M x 2	45.00%	0.03	0.760	4.47 0.0138	4.41 0.0144	4.40 0.0149	4.36 0.0155	4.32 0.017	4.28 0.0178

Construction	Resin Content %	Thickness (inch)	Thickness (mm)	Dielectric Constant (DK) / Dissipation Factor (DF)					
				100 MHz	500 MHz	1 GHz	2 GHz	5 GHz	10 GHz
7628M x 2 + 7628M (HRC) x 2	47.00%	0.032	0.810	4.41 0.0141	4.35 0.0146	4.34 0.0152	4.30 0.0158	4.25 0.0173	4.22 0.0181
7628L(HRC) x 4 + 7628L x 1	43.40%	0.035	0.890	4.52 0.0136	4.47 0.0142	4.46 0.0147	4.41 0.0152	4.37 0.0167	4.33 0.0176
7628L x 3 + 7628M x 2	43.00%	0.036	0.914	4.53 0.0135	4.48 0.0141	4.47 0.0147	4.42 0.0152	4.39 0.0166	4.34 0.0175
7628M x 5	46.00%	0.039	1.000	4.44 0.0139	4.38 0.0145	4.37 0.015	4.33 0.0156	4.29 0.0171	4.25 0.018
7628L x 6	41.00%	0.042	1.060	4.60 0.0133	4.55 0.0138	4.54 0.0144	4.49 0.0148	4.46 0.0163	4.41 0.0172
7628L(HRC) x 2 + 7628M x 4	45.30%	0.045	1.140	4.46 0.0138	4.40 0.0144	4.39 0.015	4.35 0.0155	4.31 0.017	4.27 0.0179
7628M x 4 + 7628M(HRC) x 2	46.70%	0.047	1.200	4.42 0.014	4.36 0.0146	4.35 0.0151	4.31 0.0157	4.27 0.0172	4.23 0.0181
7628L(HRC) x 4 + 7628M x 3	44.90%	0.052	1.320	4.47 0.0138	4.42 0.0143	4.41 0.0149	4.36 0.0154	4.32 0.0169	4.28 0.0178
7628M x 7	46.00%	0.055	1.400	4.44 0.0139	4.38 0.0145	4.37 0.015	4.33 0.0156	4.29 0.0171	4.25 0.018
7628L x 4 + 7628M x 4	43.50%	0.059	1.500	4.52 0.0136	4.46 0.0142	4.45 0.0147	4.41 0.0152	4.37 0.0167	4.33 0.0176
7628M x 8	46.00%	0.062	1.570	4.44 0.0139	4.38 0.0145	4.37 0.015	4.33 0.0156	4.29 0.0171	4.25 0.018

NOTE

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Dielectric Constant (DK) / Dissipation Factor (DF) Table

Prepreg Data

Glass Style	Resin Content %	Thickness (inch)	Thickness (mm)	Dielectric Constant (DK) / Dissipation Factor (DF)					
				100 MHz	500 MHz	1 GHz	2 GHz	5 GHz	10 GHz
106	71%	0.0020	0.050	3.90 0.0172	3.83 0.0177	3.83 0.0182	3.81 0.0195	3.75 0.0211	3.74 0.0218
106	76%	0.0025	0.064	3.85 0.0179	3.78 0.0183	3.77 0.0189	3.76 0.0203	3.70 0.0219	3.70 0.0226
1067	71%	0.0025	0.064	3.90 0.0172	3.83 0.0177	3.83 0.0182	3.81 0.0195	3.75 0.0211	3.74 0.0218
1080	64%	0.0030	0.075	4.01 0.0163	3.93 0.0168	3.93 0.0173	3.90 0.0184	3.85 0.0200	3.84 0.0207
1080	68%	0.0035	0.089	3.94 0.0168	3.87 0.0173	3.87 0.0178	3.84 0.0191	3.78 0.0206	3.78 0.0213
1080	72%	0.0040	0.100	3.89 0.0173	3.82 0.0178	3.81 0.0183	3.80 0.0197	3.73 0.0212	3.73 0.0219
1080	75%	0.0045	0.114	3.86 0.0177	3.78 0.0182	3.78 0.0187	3.77 0.0202	3.71 0.0217	3.71 0.0224
2113	52%	0.0035	0.089	4.27 0.0147	4.20 0.0153	4.20 0.0158	4.15 0.0166	4.11 0.0181	4.08 0.0189
2113	57%	0.0040	0.100	4.15 0.0154	4.08 0.0159	4.08 0.0164	4.03 0.0173	3.99 0.0189	3.97 0.0197
2113	61%	0.0045	0.114	4.06 0.0159	3.99 0.0164	3.99 0.0169	3.95 0.0180	3.90 0.0195	3.89 0.0203
3313	50%	0.0035	0.089	4.32 0.0145	4.26 0.0150	4.25 0.0156	4.21 0.0163	4.17 0.0178	4.13 0.0186
3313	55%	0.0040	0.100	4.19 0.0151	4.12 0.0156	4.12 0.0162	4.08 0.0170	4.03 0.0185	4.01 0.0194

Glass Style	Resin Content %	Thickness (inch)	Thickness (mm)	Dielectric Constant (DK) / Dissipation Factor (DF)					
				100 MHz	500 MHz	1 GHz	2 GHz	5 GHz	10 GHz
3313	59%	0.0045	0.114	4.10 0.0156	4.03 0.0162	4.03 0.0167	3.99 0.0177	3.94 0.0192	3.92 0.0200
2116	50%	0.0045	0.114	4.32 0.0145	4.26 0.0150	4.25 0.0156	4.21 0.0163	4.17 0.0178	4.13 0.0186
2116	54%	0.0050	0.125	4.22 0.0150	4.15 0.0155	4.15 0.0161	4.10 0.0169	4.06 0.0184	4.03 0.0192
2116	58%	0.0055	0.140	4.12 0.0155	4.05 0.0160	4.05 0.0166	4.01 0.0175	3.96 0.0190	3.94 0.0198
1652	47%	0.0055	0.140	4.41 0.0141	4.35 0.0146	4.34 0.0152	4.30 0.0158	4.25 0.0173	4.22 0.0181
1652	51%	0.0060	0.150	4.29 0.0146	4.23 0.0151	4.23 0.0157	4.18 0.0164	4.14 0.0179	4.11 0.0188
1501	47%	0.0065	0.165	4.41 0.0141	4.35 0.0146	4.34 0.0152	4.30 0.0158	4.25 0.0173	4.22 0.0181
1501	50%	0.0070	0.175	4.32 0.0145	4.26 0.0150	4.25 0.0156	4.21 0.0163	4.17 0.0178	4.13 0.0186
7628L	41%	0.0070	0.175	4.60 0.0133	4.55 0.0138	4.54 0.0144	4.49 0.0148	4.46 0.0163	4.41 0.0172
7628L	44%	0.0075	0.190	4.50 0.0137	4.45 0.0142	4.44 0.0148	4.39 0.0153	4.35 0.0168	4.31 0.0177
7628L	47%	0.0080	0.200	4.41 0.0141	4.35 0.0146	4.34 0.0152	4.30 0.0158	4.25 0.0173	4.22 0.0181
7628L	50%	0.0085	0.216	4.32 0.0145	4.26 0.0150	4.25 0.0156	4.21 0.0163	4.17 0.0178	4.13 0.0186
7628M	48%	0.0085	0.215	4.38 0.0142	4.32 0.0147	4.31 0.0153	4.27 0.0159	4.22 0.0174	4.19 0.0183
7628M	50%	0.0090	0.225	4.32 0.0145	4.26 0.0150	4.25 0.0156	4.21 0.0163	4.17 0.0178	4.13 0.0186

NOTE

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