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
1 x 106	74%	0.002	0.050	4.07 0.0180	4.03 0.0210	4.01 0.0240	3.96 0.0250	3.89 0.0260
1 x 1080	61%	0.003	0.080	4.29 0.0170	4.25 0.0190	4.23 0.0210	4.19 0.0220	4.13 0.0220
1 x 2116	45%	0.004	0.100	4.61 0.0140	4.58 0.0160	4.56 0.0180	4.54 0.0180	4.47 0.0180
1 x 1652	42%	0.005	0.130	4.67 0.0140	4.64 0.0150	4.62 0.0170	4.60 0.0180	4.55 0.0180
1 x 1652	50%	0.006	0.150	4.50 0.0150	4.46 0.0170	4.45 0.0190	4.42 0.0200	4.36 0.0200
1 x 7628	39%	0.007	0.180	4.72 0.0130	4.68 0.0150	4.67 0.0170	4.65 0.0170	4.56 0.0170
1 x 7628	44%	0.008	0.200	4.58 0.0150	4.56 0.0160	4.53 0.0170	4.51 0.0180	4.46 0.0180
2 x 1652	42%	0.010	0.250	4.67 0.0140	4.64 0.0150	4.62 0.0170	4.60 0.0180	4.55 0.0180
2 x 1652	50%	0.012	0.300	4.50 0.0150	4.46 0.0170	4.45 0.0190	4.42 0.0200	4.36 0.0200
2 x 7628	39%	0.014	0.360	4.72 0.0130	4.68 0.0150	4.67 0.0170	4.65 0.0170	4.56 0.0170
2 x 7628	41%	0.015	0.380	4.70 0.0140	4.66 0.0150	4.65 0.0170	4.62 0.0170	4.57 0.0180
2 x 7628	44%	0.016	0.410	4.58 0.0150	4.56 0.0160	4.53 0.0170	4.51 0.0180	4.46 0.0180
2x7628, 1x2116	42%	0.018	0.460	4.67 0.0140	4.64 0.0150	4.62 0.0170	4.60 0.0180	4.55 0.0180
3 x 7628	38%	0.020	0.510	4.74 0.0130	4.70 0.0150	4.69 0.0160	4.67 0.0170	4.60 0.0170
3 x 7628	41%	0.022	0.560	4.70 0.0140	4.66 0.0150	4.65 0.0170	4.62 0.0170	4.57 0.0180
3 x 7628	44%	0.024	0.610	4.58 0.0150	4.56 0.0160	4.53 0.0170	4.51 0.0180	4.46 0.0180
4 x 7628	39%	0.028	0.710	4.72 0.0130	4.68 0.0150	4.67 0.0170	4.65 0.0170	4.56 0.0170
4 x 7628	41%	0.030	0.760	4.70 0.0140	4.66 0.0150	4.65 0.0170	4.62 0.0170	4.57 0.0180
4 x 7628	44%	0.031	0.800	4.58 0.0150	4.56 0.0160	4.53 0.0170	4.51 0.0180	4.46 0.0180
5 x 7628	39%	0.035	0.900	4.72 0.0130	4.68 0.0150	4.67 0.0170	4.65 0.0170	4.56 0.0170

5 x 7628	41%	0.038	0.960	4.70 0.0140	4.66 0.0150	4.65 0.0170	4.62 0.0170	4.57 0.0180
5 x 7628	44%	0.039	1.000	4.58 0.0150	4.56 0.0160	4.53 0.0170	4.51 0.0180	4.46 0.0180
6 x 7628	39%	0.043	1.080	4.72 0.0130	4.68 0.0150	4.67 0.0170	4.65 0.0170	4.56 0.0170
6 x 7628	44%	0.047	1.200	4.58 0.0150	4.56 0.0160	4.53 0.0170	4.51 0.0180	4.46 0.0180
8 x 7628	39%	0.057	1.460	4.72 0.0130	4.68 0.0150	4.67 0.0170	4.65 0.0170	4.56 0.0170
8 x 7628	42%	0.060	1.520	4.67 0.0140	4.64 0.0150	4.62 0.0170	4.60 0.0180	4.55 0.0180
9 x 7628	39%	0.061	1.550	4.72 0.0130	4.68 0.0150	4.67 0.0170	4.65 0.0170	4.56 0.0170
10 x 7628	41%	0.076	1.930	4.70 0.0140	4.66 0.0150	4.65 0.0170	4.62 0.0170	4.57 0.0180
11 x 7628	41%	0.079	2.000	4.70 0.0140	4.66 0.0150	4.65 0.0170	4.62 0.0170	4.57 0.0180
13 x 7628	41%	0.094	2.400	4.70 0.0140	4.66 0.0150	4.65 0.0170	4.62 0.0170	4.57 0.0180
16 x 7628	41%	0.118	3.000	4.70 0.0140	4.66 0.0150	4.65 0.0170	4.62 0.0170	4.57 0.0180
18 x 7628	40%	0.126	3.200	4.71 0.0140	4.67 0.0150	4.66 0.0170	4.63 0.0170	4.58 0.0170

Prepreg 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
106	73%	0.0023	0.058	4.10 0.0180	4.04 0.0210	4.02 0.0240	3.98 0.0250	3.91 0.0250
1080	64%	0.0030	0.077	4.44 0.0170	4.20 0.0190	4.18 0.0220	4.12 0.0230	4.07 0.0230
1080	72%	0.0040	0.102	4.11 0.0180	4.05 0.0210	4.03 0.0240	4.00 0.0250	3.92 0.0250
2113	54%	0.0039	0.100	4.43 0.0150	4.39 0.0170	4.37 0.0200	4.34 0.0210	4.27 0.0210
2116	50%	0.0047	0.120	4.50 0.0150	4.46 0.0170	4.45 0.0190	4.42 0.0200	4.36 0.0200
2116	57%	0.0054	0.138	4.37 0.0160	4.33 0.0180	4.31 0.0200	4.27 0.0210	4.21 0.0210
7628	45%	0.0078	0.198	4.61 0.0140	4.58 0.0160	4.56 0.0180	4.54 0.0180	4.47 0.0180
7628	50%	0.0088	0.223	4.50 0.0150	4.46 0.0170	4.45 0.0190	4.42 0.0200	4.36 0.0200

DE104

Low Tg Laminate and Prepreg

Revision No: C | April 15, 2025

NOTE

Revision:
A - Initial web release 03/21
B - Deleted Core 0.010" / 2x 2165 01/25
C - Deleted Prepreg 2125 Weave 04/25

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