

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
01X 106	72	0.0020	0.051	3.37 0.0075	3.36 0.0089	3.34 0.0096	3.32 0.0101	3.30 0.0107	3.30 0.0107
01X1080	57	0.0025	0.064	3.67 0.0071	3.64 0.0079	3.62 0.0089	3.61 0.0092	3.60 0.0097	3.59 0.0095
01X1080	63	0.0030	0.076	3.54 0.0074	3.52 0.0082	3.50 0.0092	3.48 0.0096	3.47 0.0102	3.47 0.0101
02X 106	67	0.0035	0.089	3.46 0.0074	3.45 0.0083	3.42 0.0094	3.40 0.0098	3.38 0.0104	3.37 0.0102
01X3313	50	0.0035	0.089	3.82 0.0068	3.79 0.0076	3.77 0.0084	3.77 0.0087	3.74 0.0092	3.74 0.0090
01X 106_01X1080	59	0.0040	0.102	3.63 0.0072	3.61 0.0080	3.58 0.0090	3.57 0.0093	3.55 0.0098	3.54 0.0096
01X3313	55	0.0040	0.102	3.72 0.0071	3.70 0.0077	3.68 0.0087	3.66 0.0090	3.65 0.0095	3.65 0.0094
01X2116	50	0.0045	0.114	3.82 0.0068	3.81 0.0075	3.80 0.0083	3.79 0.0086	3.78 0.0091	3.76 0.0089
02X1080	57	0.0050	0.127	3.67 0.0071	3.64 0.0079	3.62 0.0089	3.61 0.0092	3.60 0.0097	3.59 0.0095
01X2116	54	0.0050	0.127	3.72 0.0070	3.71 0.0077	3.70 0.0086	3.69 0.0089	3.67 0.0095	3.67 0.0093
01X1652	50	0.0060	0.152	3.82 0.0068	3.81 0.0075	3.80 0.0083	3.79 0.0086	3.78 0.0091	3.76 0.0089
02X3313	50	0.0070	0.178	3.82 0.0068	3.81 0.0075	3.80 0.0083	3.79 0.0086	3.78 0.0091	3.76 0.0089
02X3313	55	0.0080	0.203	3.72 0.0071	3.70 0.0077	3.68 0.0087	3.66 0.0090	3.65 0.0095	3.65 0.0094
02X2116	54	0.0100	0.254	3.72 0.0070	3.71 0.0077	3.70 0.0086	3.69 0.0089	3.67 0.0095	3.67 0.0093
02X1652	50	0.0120	0.305	3.82 0.0075	3.81 0.0083	3.80 0.0086	3.79 0.0091	3.78 0.0089	3.76 0.0085
03X3313	55	0.0120	0.305	3.72 0.0071	3.70 0.0077	3.68 0.0087	3.66 0.0090	3.65 0.0095	3.65 0.0094
01X1080_02X1652	49	0.0140	0.356	3.86 0.0068	3.83 0.0074	3.81 0.0083	3.80 0.0086	3.78 0.0090	3.78 0.0089
03X1652	45	0.0160	0.406	3.95 0.0066	3.92 0.0072	3.91 0.0080	3.90 0.0083	3.89 0.0086	3.88 0.0085

03X1652	50	0.0180	0.457	3.82 0.0068	3.81 0.0075	3.80 0.0083	3.79 0.0086	3.78 0.0091	3.76 0.0089
02X1652_02X2116	47	0.0200	0.508	3.89 0.0067	3.88 0.0074	3.87 0.0083	3.85 0.0085	3.84 0.0089	3.83 0.0088
03X1652_02X2116	52	0.0280	0.711	3.77 0.0073	3.76 0.0080	3.76 0.0088	3.75 0.0091	3.73 0.0093	3.73 0.0093

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	10 GHz
106	70	0.0019	0.048	3.40 0.0080	3.38 0.0090	3.36 0.0100	3.34 0.0100	3.32 0.0110	3.31 0.0110
106	75	0.0023	0.058	3.30 0.0080	3.27 0.0090	3.26 0.0100	3.23 0.0110	3.22 0.0110	3.22 0.0110
1067	69	0.0023	0.058	3.42 0.0080	3.40 0.0080	3.38 0.0100	3.36 0.0100	3.34 0.0110	3.33 0.0100
1067	73	0.0027	0.069	3.33 0.0080	3.32 0.0090	3.30 0.0100	3.28 0.0100	3.26 0.0110	3.26 0.0110
1086	62	0.0032	0.081	3.55 0.0070	3.54 0.0080	3.52 0.0090	3.50 0.0100	3.48 0.0100	3.48 0.0100
1080	65.5	0.0032	0.081	3.50 0.0070	3.49 0.0080	3.46 0.0090	3.44 0.0100	3.42 0.0100	3.42 0.0100
1086	65	0.0035	0.089	3.50 0.0070	3.49 0.0080	3.46 0.0090	3.44 0.0100	3.42 0.0100	3.42 0.0100
1080	71	0.0040	0.102	3.37 0.0080	3.36 0.0090	3.34 0.0100	3.32 0.0100	3.30 0.0110	3.30 0.0110
2113	57.5	0.0041	0.104	3.67 0.0070	3.64 0.0080	3.62 0.0090	3.61 0.0090	3.60 0.0100	3.59 0.0100
3313	57	0.0042	0.102	3.67 0.0070	3.64 0.0080	3.62 0.0090	3.61 0.0090	3.60 0.0100	3.59 0.0100
3313	59	0.0044	0.107	3.63 0.0070	3.61 0.0080	3.58 0.0090	3.57 0.0090	3.55 0.0100	3.54 0.0100
2116	55	0.0049	0.124	3.72 0.0070	3.70 0.0080	3.68 0.0090	3.66 0.0090	3.65 0.0100	3.65 0.0090
2116	58	0.0054	0.137	3.65 0.0070	3.63 0.0080	3.60 0.0090	3.59 0.0090	3.57 0.0100	3.56 0.0100
1652	50	0.0060	0.152	3.82 0.0068	3.81 0.0075	3.80 0.0083	3.79 0.0086	3.78 0.0091	3.76 0.0089

NOTE

Revisions:

A-Original-4/17

B-Added Standard & Alternate construction-8/18

C-Removed Low Dk glass option 10/18

D-1086 71% PP changed to Std/Spread-2/19

E-Corrected RC% on 3 mil 1086 from 58% to 59% 11/22

F-Corrected RC% on 2113 prepreg to 57.5% 2/23

G-Removed core: 1x1067 2.5 mil, 1x1086 3.0 mil, 1x106/1x1080 4.3 mil, 1x106/1x1080 4.5 mil, 2x1067 5.0 mil, 2x1080 5.5 mil, 2x1086 6.0 mil, 2x1652 10.mil, 2x2116/2x1652 21.0 mil

Added core: 2x1067 4.3 mil, 2x1080 6.0 mil, 2x1652 12.0 mil

Removed Prepreg: 1080 65% RC, 2313 56% RC

Added Prepreg: 1080 65.5%RC. 1652 50% RC

H-Modified construction call outs 08/2024

All FR408HR glass is Spread Weave in both directions

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