

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

Core Data

Construction	Resin Content %	Standard/ Alternate	Thickness (inch)	Thickness (mm)	Dielectric Constant (DK) / Dissipation Factor (DF)							
					100 MHz	500 MHz	1 GHz	2 GHz	5 GHz	10 GHz	15 GHz	20 GHz
1x1067	66.5%	Std/Spread	0.0020	0.051	3.05 0.0016	3.05 0.0016	3.05 0.0017	3.05 0.0017	3.05 0.0017	3.05 0.0017	3.05 0.0017	3.05 0.0017
1x1035	73.5%	Std/Spread	0.0025	0.064	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014
1x1067	72.5%	Std/Spread	0.0025	0.064	2.98 0.0014	2.98 0.0014	2.98 0.0014	2.98 0.0014	2.98 0.0015	2.98 0.0015	2.98 0.0015	2.98 0.0015
1x1078	66.0%	Std/Spread	0.0030	0.076	3.09 0.0018	3.09 0.0018	3.09 0.0018	3.09 0.0018	3.09 0.0018	3.09 0.0018	3.09 0.0018	3.09 0.0018
1x1078	70.5%	Std/Spread	0.0035	0.089	3.02 0.0015	3.02 0.0015	3.02 0.0015	3.02 0.0016	3.02 0.0016	3.02 0.0016	3.02 0.0016	3.01 0.0016
2x1035	67.5%	Alt/Spread	0.0040	0.102	3.07 0.0017	3.07 0.0017	3.07 0.0017	3.07 0.0017	3.07 0.0017	3.07 0.0017	3.07 0.0017	3.07 0.0017
1x3313	58.5%	Standard	0.0040	0.102	3.24 0.0022	3.24 0.0022	3.24 0.0022	3.24 0.0022	3.24 0.0022	3.24 0.0022	3.24 0.0022	3.24 0.0022
2x1067	66.5%	Std/Spread	0.0040	0.102	3.05 0.0016	3.05 0.0016	3.05 0.0017	3.05 0.0017	3.05 0.0017	3.05 0.0017	3.05 0.0017	3.05 0.0017
2x1067	70.0%	Std/Spread	0.0045	0.114	3.02 0.0016	3.02 0.0016	3.02 0.0016	3.02 0.0016	3.02 0.0016	3.02 0.0016	3.02 0.0016	3.02 0.0016
2x1078	60.0%	Std/Spread	0.0050	0.127	3.19 0.0020	3.19 0.0021	3.19 0.0021	3.19 0.0021	3.19 0.0021	3.19 0.0021	3.19 0.0021	3.19 0.0021
1x3313	66.0%	Alternate	0.0050	0.127	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018
1x2116	57.0%	Standard	0.0050	0.127	3.25 0.0022	3.25 0.0022	3.25 0.0022	3.25 0.0022	3.25 0.0022	3.25 0.0022	3.25 0.0022	3.25 0.0022

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					100 MHz	500 MHz	1 GHz	2 GHz	5 GHz	10 GHz	15 GHz	20 GHz
2x1067	72.5%	Std/Spread	0.0050	0.127	2.98 0.0014	2.98 0.0014	2.98 0.0014	2.98 0.0014	2.98 0.0015	2.98 0.0015	2.98 0.0015	2.98 0.0015
2x1078	66.0%	Std/Spread	0.0060	0.152	3.09 0.0018	3.09 0.0018	3.09 0.0018	3.09 0.0018	3.09 0.0018	3.09 0.0018	3.09 0.0018	3.09 0.0018
1x2116	63.5%	Standard	0.0060	0.152	3.14 0.0019	3.14 0.0019	3.14 0.0019	3.14 0.0019	3.14 0.0019	3.14 0.0019	3.14 0.0019	3.14 0.0019
2x1078	68.5%	Alt/Spread	0.0066	0.168	3.04 0.0016	3.04 0.0016	3.04 0.0016	3.04 0.0016	3.04 0.0016	3.04 0.0016	3.04 0.0016	3.04 0.0016
2x1078	70.5%	Std/Spread	0.0070	0.178	3.02 0.0015	3.02 0.0015	3.02 0.0015	3.02 0.0016	3.02 0.0016	3.02 0.0016	3.02 0.0016	3.01 0.0016
2x3313	58.5%	Standard	0.0080	0.203	3.24 0.0022	3.24 0.0022	3.24 0.0022	3.24 0.0022	3.24 0.0022	3.24 0.0022	3.24 0.0022	3.24 0.0022
3x1078	68.5%	Std/Spread	0.0100	0.254	3.04 0.0016	3.04 0.0016	3.04 0.0016	3.04 0.0016	3.04 0.0016	3.04 0.0016	3.04 0.0016	3.04 0.0016
2x3313	66.0%	Alternate	0.0100	0.254	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018
2x2116	57.0%	Standard	0.0100	0.254	3.25 0.0022	3.25 0.0022	3.25 0.0022	3.25 0.0022	3.25 0.0022	3.25 0.0022	3.25 0.0022	3.25 0.0022
3x3313	58.5%	Standard	0.0120	0.305	3.24 0.0022	3.24 0.0022	3.24 0.0022	3.24 0.0022	3.24 0.0022	3.24 0.0022	3.24 0.0022	3.24 0.0022
2x3313/1078	66.5%	Alternate	0.0133	0.338	3.10 0.0018	3.10 0.0018	3.10 0.0018	3.10 0.0018	3.10 0.0018	3.10 0.0018	3.10 0.0018	3.10 0.0018
3x3313	62.5%	Standard	0.0140	0.356	3.15 0.0019	3.15 0.0020	3.15 0.0020	3.15 0.0020	3.15 0.0020	3.15 0.0020	3.15 0.0020	3.15 0.0020
3x3313	66.0%	Standard	0.0150	0.381	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018
2x3313/2x1078	68.3%	Alternate	0.0166	0.422	3.08 0.0017	3.08 0.0017	3.08 0.0018	3.08 0.0018	3.08 0.0018	3.08 0.0018	3.08 0.0018	3.08 0.0018
4x2116	57.0%	Standard	0.0200	0.508	3.25 0.0022	3.25 0.0022	3.25 0.0022	3.25 0.0022	3.25 0.0022	3.25 0.0022	3.25 0.0022	3.25 0.0022

NOTE

Revisions:

A-Original-4/17

B-Adjusted CCL RC% & PP thickness-6/18

C-Added Standard & Alternate construction-8/18

Standard-Commonly available with the best availability.

Alternate-Available, but not stocked with longer lead time

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

Prepreg Data

Glass Style	Resin Content %	Standard/ Alternate	Thickness (inch)	Thickness (mm)	Dielectric Constant (DK) / Dissipation Factor (DF)							
					100 MHz	500 MHz	1 GHz	2 GHz	5 GHz	10 GHz	15 GHz	20 GHz
1035	69.0%	Std/Spread	0.0020	0.051	3.06 0.0017	3.06 0.0017	3.06 0.0017	3.06 0.0017	3.06 0.0017	3.06 0.0017	3.06 0.0017	3.06 0.0017
1067	70.0%	Std/Spread	0.0022	0.056	3.05 0.0016	3.05 0.0016	3.05 0.0017	3.05 0.0017	3.05 0.0017	3.05 0.0017	3.05 0.0017	3.05 0.0017
106	76.0%	Standard	0.0023	0.058	2.95 0.0013	2.95 0.0013	2.95 0.0013	2.95 0.0013	2.95 0.0014	2.95 0.0014	2.95 0.0014	2.95 0.0014
1067	71.5%	Std/Spread	0.0024	0.061	3.02 0.0016	3.02 0.0016	3.02 0.0016	3.02 0.0016	3.02 0.0016	3.02 0.0016	3.02 0.0016	3.02 0.0016
1035	75.0%	Std/Spread	0.0026	0.066	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014
1067	74.0%	Std/Spread	0.0026	0.066	2.98 0.0014	2.98 0.0014	2.98 0.0014	2.98 0.0014	2.98 0.0015	2.98 0.0015	2.98 0.0015	2.98 0.0015
1067	76.5%	Std/Spread	0.0029	0.074	2.94 0.0013	2.94 0.0013	2.94 0.0013	2.94 0.0013	2.94 0.0013	2.94 0.0013	2.94 0.0013	2.94 0.0013
1078	65.0%	Std/Spread	0.0029	0.074	3.14 0.0019	3.14 0.0019	3.14 0.0019	3.14 0.0019	3.14 0.0019	3.14 0.0019	3.14 0.0019	3.14 0.0019
1078	67.5%	Std/Spread	0.0031	0.079	3.09 0.0018	3.09 0.0018	3.09 0.0018	3.09 0.0018	3.09 0.0018	3.09 0.0018	3.09 0.0018	3.09 0.0018
1078	70.5%	Std/Spread	0.0035	0.089	3.04 0.0016	3.04 0.0016	3.04 0.0016	3.04 0.0016	3.04 0.0016	3.04 0.0016	3.04 0.0016	3.04 0.0016
1080	72.0%	Standard	0.0038	0.097	3.02 0.0015	3.02 0.0015	3.02 0.0015	3.02 0.0016	3.02 0.0016	3.02 0.0016	3.02 0.0016	3.01 0.0016
1078	72.0%	Std/Spread	0.0037	0.094	3.02 0.0015	3.02 0.0015	3.02 0.0015	3.02 0.0016	3.02 0.0016	3.02 0.0016	3.02 0.0016	3.01 0.0016

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					100 MHz	500 MHz	1 GHz	2 GHz	5 GHz	10 GHz	15 GHz	20 GHz
1078	75.0%	Std/Spread	0.0042	0.107	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014
1080	75.0%	Standard	0.0043	0.109	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014	2.97 0.0014
3313	62.0%	Alternate	0.0045	0.114	3.19 0.0020	3.19 0.0021	3.19 0.0021	3.19 0.0021	3.19 0.0021	3.19 0.0021	3.19 0.0021	3.19 0.0021
1080	78.0%	Alternate	0.0046	0.117	2.92 0.0013	2.92 0.0013	2.92 0.0013	2.92 0.0013	2.92 0.0014	2.92 0.0014	2.92 0.0014	2.92 0.0014
1078	78.0%	Alt/Spread	0.0046	0.117	2.92 0.0013	2.92 0.0013	2.92 0.0013	2.92 0.0013	2.92 0.0014	2.92 0.0014	2.92 0.0014	2.92 0.0014
3313	63.5%	Standard	0.0046	0.117	3.16 0.0020	3.16 0.0020	3.16 0.0020	3.16 0.0020	3.16 0.0020	3.16 0.0020	3.16 0.0020	3.16 0.0020
3313	66.5%	Standard	0.0051	0.129	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018	3.11 0.0018
2116	62.0%	Standard	0.0058	0.147	3.19 0.0020	3.19 0.0021	3.19 0.0021	3.19 0.0021	3.19 0.0021	3.19 0.0021	3.19 0.0021	3.19 0.0021
3313	69.5%	Alternate	0.0057	0.145	3.06 0.0017	3.06 0.0017	3.06 0.0017	3.06 0.0017	3.06 0.0017	3.06 0.0017	3.06 0.0017	3.06 0.0017
2116	65.0%	Alternate	0.0064	0.163	3.14 0.0019	3.14 0.0019	3.14 0.0019	3.14 0.0019	3.14 0.0019	3.14 0.0019	3.14 0.0019	3.14 0.0019

NOTE

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