

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
1x106	70.0%	Alternate	0.0020	0.051	3.70 0.0150	3.60 0.0170	3.60 0.0200	3.60 0.0210	3.60 0.0240	3.60 0.0290
1x106	74.0%	Standard	0.0025	0.064	3.60 0.0160	3.60 0.0180	3.50 0.0200	3.50 0.0210	3.50 0.0250	3.50 0.0300
1x1080	61.0%	Standard	0.0030	0.076	3.80 0.0140	3.80 0.0160	3.80 0.0180	3.80 0.0190	3.70 0.0220	3.70 0.0260
2x106	66.0%	Standard	0.0035	0.089	3.70 0.0150	3.70 0.0160	3.70 0.0190	3.70 0.0200	3.60 0.0230	3.60 0.0280
1x2116	45.0%	Standard	0.0040	0.102	4.20 0.0120	4.20 0.0140	4.10 0.0160	4.10 0.0160	4.10 0.0190	4.10 0.0220
106/1080	58.0%	Alternate	0.0042	0.107	3.90 0.0130	3.80 0.0150	3.80 0.0170	3.80 0.0180	3.80 0.0210	3.80 0.2490
106/1080	62.0%	Standard	0.0045	0.114	3.80 0.0140	3.80 0.0160	3.80 0.0180	3.80 0.0190	3.70 0.0220	3.70 0.0260
106/1080	65.0%	Alternate	0.0050	0.127	3.80 0.0140	3.70 0.0160	3.70 0.0190	3.70 0.0200	3.70 0.0230	3.70 0.0270
2x1080	57.0%	Standard	0.0050	0.127	3.90 0.0130	3.80 0.0150	3.90 0.0170	3.80 0.0180	3.80 0.0210	3.80 0.2490
106/2113	53.0%	Standard	0.0053	0.135	4.00 0.0130	4.00 0.0150	3.90 0.0170	3.90 0.0170	3.90 0.0200	3.90 0.0240
106/2116	49.0%	Standard	0.0060	0.152	4.10 0.0130	4.00 0.0140	4.00 0.0160	4.00 0.0160	4.00 0.0190	4.00 0.0220
1080/2116	51.0%	Standard	0.0070	0.178	4.00 0.0130	4.00 0.0140	4.00 0.0160	4.00 0.0170	3.90 0.0200	3.90 0.0230
2113/2116	47.0%	Standard	0.0080	0.203	4.10 0.0120	4.10 0.0140	4.10 0.0160	4.10 0.0160	4.00 0.0190	4.00 0.0220
2113/2116	48.0%	Standard	0.0080	0.203	4.10 0.0120	4.10 0.0140	4.10 0.0160	4.00 0.0160	4.00 0.0190	4.00 0.0220
2x2113/106	54.0%	Standard	0.0090	0.229	4.00 0.0130	3.90 0.0150	3.90 0.0170	3.90 0.0170	3.90 0.0200	3.90 0.0240
2x1080/2116	54.0%	Standard	0.0100	0.254	4.00 0.0130	3.90 0.0150	3.90 0.0170	3.90 0.0170	3.90 0.0200	3.90 0.0240
7628/2x1080	45.0%	Standard	0.0120	0.305	4.20 0.0120	4.20 0.0140	4.10 0.0160	4.10 0.0160	4.10 0.0190	4.10 0.0220
2x7628	39.0%	Standard	0.0140	0.356	4.30 0.0110	4.30 0.0120	4.20 0.0140	4.20 0.0140	4.20 0.0170	4.20 0.0190

2x7628/1080	42.0%	Alternate	0.0160	0.406	4.00 0.0090	4.00 0.0090	4.00 0.0100	4.00 0.0110	4.00 0.0110	4.00 0.0110
2x7628/2113	41.0%	Alternate	0.0180	0.457	4.10 0.0090	4.10 0.0090	4.00 0.0100	4.00 0.0110	4.00 0.0110	4.00 0.0110
3x7628	38.0%	Alternate	0.0200	0.508	4.20 0.0110	4.20 0.0120	4.20 0.0140	4.20 0.0140	4.10 0.0170	4.10 0.0190
3x7628/2116	40.0%	Alternate	0.0240	0.610	4.30 0.0110	4.20 0.0120	4.20 0.0140	4.20 0.0150	4.20 0.0170	4.20 0.0200
4x7628	39.0%	Standard	0.0280	0.711	4.30 0.0110	4.30 0.0120	4.20 0.0140	4.20 0.0140	4.20 0.0170	4.20 0.0190
4x7628/2116	39.0%	Standard	0.0310	0.787	4.30 0.0110	4.30 0.0120	4.20 0.0140	4.20 0.0140	4.20 0.0170	4.20 0.0190
6x7628	36.0%	Standard	0.0390	0.991	4.30 0.0100	4.30 0.0120	4.30 0.0130	4.30 0.0140	4.30 0.0160	4.30 0.0180
1x2116/ 8x7628	38.0%	Standard	0.0590	1.499	4.30 0.0110	4.30 0.0120	4.30 0.0140	4.30 0.0140	4.20 0.0170	4.20 0.0190

Prepreg Dielectric Constant(Dk) / Dissipation factor (Df) Table

Prepreg Data

Glass Style	Resin Content %	Thickness (inch)	Thickness (mm)	100 MHz	Dielectric Constant (DK)/ Dissipation Factor (DF)				
					500 MHz	1 GHz	2 GHz	5 GHz	10 GHz
106	75.0%	0.0025	0.064	3.59 0.0156	3.55 0.0177	3.53 0.0205	3.50 0.0215	3.48 0.0255	3.48 0.0302
1080	65.0%	0.0032	0.081	3.76 0.0144	3.72 0.0163	3.70 0.0187	3.67 0.0195	3.66 0.0231	3.66 0.0272
2113	57.0%	0.0044	0.112	3.91 0.0135	3.87 0.0152	3.86 0.0173	3.83 0.0180	3.82 0.0211	3.82 0.0247
2116	54.0%	0.0052	0.132	3.97 0.0132	3.93 0.0147	3.92 0.0167	3.89 0.0174	3.88 0.0203	3.88 0.0238
7628	42.0%	0.0074	0.188	4.22 0.0115	4.19 0.0128	4.18 0.0145	4.17 0.0150	4.14 0.0175	4.14 0.0201

NOTE

Revisions:

A-Original-4/17

B-Modified construction offering 6/19

C-Corrected 31 mil core thickness 9/19

D-Corrected 18 mil 1x2113/2x7628 2/21

Standard-Commonly available with the best availability.

Alternate-Available, but not stocked with longer lead time

Isola, the Isola logo, Astra, Chronon, GETEK, I-Fill, IsoDesign, IsoStack, I-Speed, I-Tera, Polyclad, Stratus, TerraGreen, and The Base for Innovation are registered trademarks or trademarks of ISOLA USA Corp. in the United States and in other countries.

Copyright © 2021 Isola Group. All rights reserved.