FR406

Standard Loss, High Tg Epoxy Laminate and Prepreg

Revision No: D | May 28, 2026

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

Core Data

Construction	Resin Content %	Standard/Alternate	Thinckness (inch)	Thickness (mm)	Dielectric Constant (DK)/ Dissipation Factor (DF)					
					100 MHz	500 MHz	1 GHz	2 GHz	5 GHz	10 GHz
1x1080	58.0%	Standard	0.0025	0.064	3.83 0.0140	3.79 0.0160	3.77 0.0180	3.75 0.0190	3.72 0.0190	3.72 0.0190
1x2113	44.0%	Standard	0.0030	0.076	4.14 0.0120	4.10 0.0140	4.09 0.0150	4.07 0.0160	4.06 0.0160	4.06 0.0160
2x106	65.0%	Standard	0.0035	0.089	3.69 0.0150	3.65 0.0170	3.63 0.0190	3.61 0.0200	3.58 0.0200	3.58 0.0200
1x2116	45.0%	Standard	0.0040	0.102	4.11 0.0120	4.08 0.0140	4.07 0.0150	4.04 0.0160	4.02 0.0160	4.02 0.0160
106/1080	59.0%	Alternate	0.0040	0.102	3.83 0.0140	3.79 0.0160	3.77 0.0180	3.75 0.0190	3.72 0.0190	3.72 0.0190
106/1080	60.0%	Standard	0.0043	0.109	3.79 0.0140	3.75 0.0160	3.73 0.0180	3.71 0.0190	3.68 0.0200	3.68 0.0200
1x1652	42.0%	Standard	0.0050	0.127	4.18 0.0120	4.15 0.0130	4.14 0.0150	4.12 0.0150	4.10 0.0160	4.10 0.0160
106/2113	56.0%	Standard	0.0053	0.135	3.87 0.0140	3.83 0.0150	3.82 0.0170	3.79 0.0180	3.76 0.0190	3.76 0.0190
1080/2113	53.0%	Standard	0.0060	0.152	3.93 0.0130	3.90 0.0150	3.88 0.0170	3.86 0.0180	3.83 0.0180	3.83 0.0180
1x7628	41.0%	Standard	0.0070	0.178	4.21 0.0120	4.18 0.0130	4.17 0.0150	4.14 0.0150	4.12 0.0150	4.12 0.0150
2113/2116	44.0%	Alternate	0.0070	0.178	4.14 0.0120	4.10 0.0140	4.09 0.0150	4.07 0.0160	4.06 0.0160	4.06 0.0160
2x2116	45.0%	Standard	0.0080	0.203	4.11 0.0120	4.08 0.0140	4.07 0.0150	4.04 0.0160	4.02 0.0160	4.02 0.0160
2x2116	52.0%	Standard	0.0095	0.241	3.95 0.0130	3.92 0.0150	3.90 0.0170	3.88 0.0170	3.85 0.0180	3.85 0.0180
2x1652	42.0%	Standard	0.0100	0.254	4.18 0.0120	4.15 0.0130	4.14 0.0150	4.12 0.0150	4.10 0.0160	4.10 0.0160
2x1080/7628	47.0%	Standard	0.0120	0.305	4.06 0.0130	4.03 0.0140	4.02 0.0160	3.99 0.0160	3.97 0.0170	3.97 0.0170
2x7628	41.0%	Standard	0.0140	0.356	4.21 0.0120	4.18 0.0130	4.17 0.0150	4.14 0.0150	4.12 0.0150	4.12 0.0150
2x7628/2116	42.0%	Standard	0.0180	0.457	4.18 0.0120	4.15 0.0130	4.14 0.0150	4.12 0.0150	4.10 0.0160	4.10 0.0160
3x7628	40.0%	Standard	0.0210	0.533	4.23 0.0120	4.20 0.0130	4.19 0.0140	4.17 0.0150	4.15 0.0150	4.15 0.0150
3x7628/1080	42.0%	Standard	0.0240	0.610	4.18 0.0120	4.15 0.0130	4.14 0.0150	4.12 0.0150	4.10 0.0160	4.10 0.0160
4x7628	40.0%	Standard	0.0280	0.711	4.23 0.0120	4.20 0.0130	4.19 0.0140	4.17 0.0150	4.15 0.0150	4.15 0.0150

4x7628/1080	42.0%	Standard	0.0310	0.787	4.18 0.0120	4.15 0.0130	4.14 0.0150	4.12 0.0150	4.10 0.0160	4.10 0.0160
5x7628	40.0%	Standard	0.0350	0.889	4.23 0.0120	4.20 0.0130	4.19 0.0140	4.17 0.0150	4.15 0.0150	4.15 0.0150

Prepreg 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
106	75.00%	Standard	0.0025	0.064	3.52 0.0160	3.47 0.0180	3.45 0.0210	3.42 0.0220	3.39 0.0230	3.39 0.0230
1080	65.00%	Standard	0.0033	0.084	3.69 0.0150	3.65 0.0170	3.63 0.0190	3.61 0.0200	3.58 0.0210	3.58 0.0210
2113	57.00%	Standard	0.0042	0.107	3.85 0.0140	3.81 0.0160	3.79 0.0180	3.77 0.0180	3.74 0.0190	3.74 0.0190
2116	56.00%	Standard	0.0054	0.137	3.87 0.0140	3.83 0.0150	3.82 0.0170	3.79 0.0180	3.76 0.0190	3.76 0.0190
1652	50.00%	Standard	0.0059	0.150	4.00 0.0130	3.96 0.0140	3.95 0.0160	3.92 0.0170	3.90 0.0170	3.90 0.0170
7628	42.00%	Standard	0.0075	0.191	4.18 0.0120	4.15 0.0130	4.14 0.0150	4.12 0.0150	4.10 0.0160	4.10 0.0160
7628	47.00%	Alternate	0.0084	0.213	4.06 0.0130	4.03 0.0140	4.02 0.0160	3.99 0.0160	3.97 0.0170	3.97 0.0170
7628	50.00%	Alternate	0.0091	0.231	4.00 0.0130	3.96 0.0140	3.95 0.0160	3.92 0.0170	3.90 0.0170	3.90 0.0170

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NOTE

Revisions:
A-Original-4/17
B-Added Standard & Alternate construction-8/18
C - Deleted 4 mil 1x3070 Construction. Added 4 mil 106/1080 construction
D - Deleted prepreg 2116 @ 62% - 05/26

Standard-Commonly available with the best availability.
Alternate-Available, but not stocked with longer lead time

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