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

Core Data

Construction	Resin Content %	Offering	Thickness (inch)	Thickness (mm)	Dielectric Constant (DK)/ Dissipation Factor (DF)			
					2 GHz	5 Ghz	10 Ghz	20 Ghz
1x1035	67.00%	Standard	0.0020	0.051	3.64 0.0063	3.61 0.0064	3.60 0.0066	3.56 0.0064
1x1067	71.00%	Standard	0.0025	0.064	3.57 0.0064	3.55 0.0066	3.53 0.0067	3.49 0.0066
1x1078	65.00%	Standard	0.0030	0.076	3.67 0.0062	3.64 0.0064	3.63 0.0065	3.59 0.0064
1x1078	69.00%	Standard	0.0035	0.089	3.61 0.0064	3.58 0.0065	3.57 0.0067	3.53 0.0065
2x1035	67.00%	Alternate	0.0040	0.102	3.64 0.0063	3.61 0.0064	3.60 0.0066	3.56 0.0064
1x3313	56.00%	Standard	0.0040	0.102	3.82 0.0059	3.79 0.0060	3.78 0.0062	3.74 0.0060
1x2116	52.00%	Standard	0.0045	0.114	3.89 0.0057	3.86 0.0059	3.85 0.0060	3.81 0.0059
1x2116	55.00%	Standard	0.0050	0.127	3.84 0.0059	3.81 0.0060	3.80 0.0062	3.76 0.0060
2x1067	71.00%	Standard	0.0050	0.127	3.57 0.0064	3.55 0.0066	3.53 0.0067	3.49 0.0066
2x1078	65.00%	Standard	0.0060	0.152	3.67 0.0062	3.64 0.0064	3.63 0.0065	3.59 0.0064
2x1078	69.00%	Standard	0.0070	0.178	3.61 0.0064	3.58 0.0065	3.57 0.0067	3.53 0.0065
2x3313	56.00%	Standard	0.0080	0.203	3.82 0.0059	3.79 0.0060	3.78 0.0062	3.74 0.0060
2x2116	55.00%	Standard	0.0100	0.254	3.84 0.0059	3.81 0.0060	3.80 0.0062	3.76 0.0060
3x3313	56.00%	Standard	0.0120	0.305	3.82 0.0059	3.79 0.0060	3.78 0.0062	3.74 0.0060
3x2116	55.00%	Proposed	0.0150	0.381	3.84 0.0059	3.81 0.0060	3.80 0.0062	3.76 0.0060
4x2116	55.00%	Proposed	0.0200	0.508	3.84 0.0059	3.81 0.0060	3.80 0.0062	3.76 0.0060

IS580G

Halogen-free, Very Low Loss Material

Revision No: C | February 6, 2026

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

Prepreg Data

Glass	Resin Content %	Offering	Thickness (inch)	Thickness (mm)	Dielectric Constant (DK)/ Dissipation Factor (DF)			
					2 GHz	5 GHz	10 GHz	20 GHz
1035	67.00%	Standard	0.002	0.051	3.64 0.0063	3.63 0.0064	3.62 0.0066	3.61 0.0064
1035	70.00%	Standard	0.0023	0.058	3.59 0.0064	3.58 0.0065	3.57 0.0067	3.56 0.0065
1035	74.00%	Standard	0.0027	0.069	3.53 0.0065	3.52 0.0067	3.51 0.0068	3.50 0.0067
1078	65.00%	Alternate	0.0031	0.079	3.67 0.0062	3.66 0.0064	3.65 0.0065	3.64 0.0064
1067	76.00%	Standard	0.0031	0.079	3.50 0.0066	3.49 0.0067	3.48 0.0069	3.47 0.0067
1078	67.00%	Standard	0.0033	0.084	3.64 0.0063	3.63 0.0064	3.62 0.0066	3.61 0.0064
1078	69.00%	Standard	0.0036	0.091	3.61 0.0064	3.60 0.0065	3.59 0.0067	3.58 0.0065
1078	71.00%	Standard	0.0039	0.099	3.57 0.0064	3.56 0.0066	3.55 0.0067	3.54 0.0066
1078	74.00%	Alternate	0.0044	0.112	3.53 0.0065	3.52 0.0067	3.51 0.0068	3.50 0.0067
3313	60.00%	Standard	0.0045	0.114	3.75 0.0060	3.74 0.0062	3.73 0.0063	3.72 0.0062
2116	55.00%	Standard	0.005	0.127	3.84 0.0059	3.83 0.0060	3.82 0.0062	3.81 0.0060
2116	59.00%	Standard	0.0056	0.142	3.77 0.0060	3.76 0.0062	3.75 0.0063	3.74 0.0062

IS580G

Halogen-free, Very Low Loss Material

Revision No: C | February 6, 2026

NOTE

Revisions:
A - Original-4/23
All IS580G glass is Spread Weave in both directions
Standard-Commonly available; Alternate-Available, but not stocked
B - Corrected typo in metric thickness of 0.015" laminate
C - Added prepreg 1078 @ 74%

Isola, the Isola logo, The Base for Innovation, Astra, I-Fill, IsoDesign, IsoStack, I-Speed, I-Tera, Polyclad, Tachyon, and TerraGreen are registered trademarks or trademarks of ISOLA USA Corp. in the United States and in other countries. Copyright © 2023 Isola Group. All rights reserved.