



N4000-13 SI® / N4000-13EP SI® – Dielectric Properties Table

LAMINATE:

Thickness & Tolerance			Construction				RC%	2GHz Dk			2 GHz Df			10 GHz Dk			10 GHz Df			
0.0020	±	0.0005	1	106			69%	3.04	±	0.056	0.0082	±	0.00021	3.02	±	0.055	0.0086	±	0.00023	
0.0020	±	0.0005	1	1035			67%	3.07	±	0.024	0.0081	±	0.00009	3.04	±	0.024	0.0085	±	0.00010	
0.0025	±	0.0005	1	1078			58%	3.19	±	0.037	0.0077	±	0.00014	3.16	±	0.037	0.0080	±	0.00016	
0.0025	±	0.0005	1	1080			58%	3.19	±	0.048	0.0077	±	0.00018	3.16	±	0.048	0.0080	±	0.00020	
0.0030	±	0.0005	1	1080			64%	3.11	±	0.029	0.0079	±	0.00011	3.08	±	0.029	0.0083	±	0.00012	
0.0040	±	0.0005	2	106			68%	3.05	±	0.035	0.0082	±	0.00013	3.02	±	0.035	0.0085	±	0.00015	
0.0050	±	0.0007	1	2116			56%	3.21	±	0.001	0.0076	±	0.00000	3.18	±	0.001	0.0079	±	0.00001	
0.0050	±	0.0007	2	1080			58%	3.19	±	0.026	0.0077	±	0.00010	3.16	±	0.026	0.0080	±	0.00011	
0.0050	±	0.0007	2	1078			58%	3.19	±	0.015	0.0077	±	0.00006	3.16	±	0.015	0.0080	±	0.00006	
0.0060	±	0.0007	2	1078			64%	3.11	±	0.004	0.0079	±	0.00002	3.08	±	0.004	0.0083	±	0.00002	
0.0060	±	0.0007	2	1080			64%	3.11	±	0.013	0.0079	±	0.00005	3.08	±	0.013	0.0083	±	0.00006	
0.0070	±	0.001	2	1080	+	1	106	61%	3.15	±	0.030	0.0078	±	0.00011	3.12	±	0.030	0.0081	±	0.00013
0.0080	±	0.001	2	2116				45%	3.38	±	0.029	0.0069	±	0.00011	3.35	±	0.029	0.0072	±	0.00012
0.0080	±	0.001	2	106	+	1	2116	56%	3.21	±	0.032	0.0076	±	0.00012	3.18	±	0.031	0.0079	±	0.00013
0.0090	±	0.001	1	2116	+	1	2116	51%	3.28	±	0.000	0.0073	±	0.00000	3.25	±	0.000	0.0076	±	0.00000
0.0100	±	0.001	2	2116				56%	3.21	±	0.017	0.0076	±	0.00006	3.18	±	0.017	0.0079	±	0.00007
0.0120	±	0.0015	3	2116				45%	3.38	±	0.029	0.0069	±	0.00011	3.35	±	0.029	0.0072	±	0.00012
0.0140	±	0.0015	2	2116	+	1	2116	53%	3.25	±	0.007	0.0074	±	0.00003	3.23	±	0.007	0.0077	±	0.00003
0.0150	±	0.0015	3	2116				56%	3.21	±	0.017	0.0076	±	0.00006	3.18	±	0.017	0.0079	±	0.00007
0.0160	±	0.0015	4	2116				45%	3.38	±	0.009	0.0069	±	0.00003	3.35	±	0.009	0.0072	±	0.00004
0.0180	±	0.0015	2	2116	+	2	2116	51%	3.28	±	0.016	0.0073	±	0.00006	3.25	±	0.016	0.0076	±	0.00007
0.0200	±	0.002	5	2116				45%	3.38	±	0.013	0.0069	±	0.00005	3.35	±	0.013	0.0072	±	0.00005
0.0310	±	0.003	6	2116				56%	3.21	±	0.002	0.0076	±	0.00001	3.18	±	0.002	0.0079	±	0.00001



N4000-13 SI[®] / N4000-13EP SI[®] – Dielectric Properties Table

PREPREG

Glass	RC%	2 GHz Dk	2GHz Df	10GHz Dk	10GHz Df	Thickness (inches)
106	75	2.98	0.0084	2.95	0.0088	0.0025
1035	75	2.98	0.0084	2.95	0.0088	0.0030
1078	65	3.09	0.0080	3.06	0.0084	0.0032
1080	65	3.09	0.0080	3.06	0.0084	0.0032
2013	58	3.18	0.0077	3.15	0.0080	0.0044
2116	55	3.22	0.0075	3.19	0.0078	0.0052

The following laminate and prepreg items are a representative of available materials. These items and their associated values may not be regularly available and additional lead times or minimum order quantities could apply. Please contact our office or your local technical representative for assistance with choosing the best material for your design and application.

For More Information:

North America +1.480.967.5600 • Europe +33.5.62.98.52.90 • Asia Pacific +65.686.17117

agc-ml.digital-sales@agc.com • www.agc-multimaterial.com

August 23, 2022