

# Base Material Line Up



## 1.Thin Core (Synamic8G)

Typical Thickness		Ply-up	RC,%	Typical Dk ( $\pm 0.2$ )					Typical Df ( $\pm 0.0003$ )				
mm	mil			1 GHz	3GHz	5GHz	10 GHz	15GHz	1 GHz	3GHz	5GHz	10 GHz	15GHz
0.051	2.0	1*1035	66.0 $\pm$ 2.0	3.41	3.41	3.40	3.40	3.39	0.0019	0.0022	0.0025	0.0028	0.0031
0.064	2.5	1*1035	72.0 $\pm$ 2.0	3.23	3.23	3.22	3.22	3.21	0.0016	0.0019	0.0022	0.0025	0.0028
0.064	2.5	1*1078	59.0 $\pm$ 2.0	3.57	3.57	3.56	3.56	3.55	0.0022	0.0025	0.0028	0.0031	0.0034
0.076	3.0	1*1078	64.0 $\pm$ 2.0	3.44	3.44	3.43	3.43	3.42	0.0019	0.0022	0.0025	0.0028	0.0031
0.089	3.5	1*1078	69.0 $\pm$ 2.0	3.29	3.29	3.28	3.28	3.27	0.0017	0.0020	0.0023	0.0026	0.0029
0.102	4.0	1*3313	56.0 $\pm$ 2.0	3.65	3.65	3.64	3.64	3.63	0.0023	0.0026	0.0029	0.0032	0.0035
0.102	4.0	2*1035	66.0 $\pm$ 2.0	3.41	3.41	3.40	3.40	3.39	0.0019	0.0022	0.0025	0.0028	0.0031
0.114	4.5	2*1035	69.0 $\pm$ 2.0	3.33	3.33	3.32	3.32	3.31	0.0017	0.0020	0.0023	0.0026	0.0029
0.114	4.5	1*3313	60.0 $\pm$ 2.0	3.54	3.54	3.53	3.53	3.52	0.0021	0.0024	0.0027	0.0030	0.0033
0.127	5.0	1*2116	55.0 $\pm$ 2.0	3.67	3.67	3.66	3.66	3.65	0.0023	0.0026	0.0029	0.0032	0.0035
0.127	5.0	2*1078	59.0 $\pm$ 2.0	3.57	3.57	3.56	3.56	3.55	0.0022	0.0025	0.0028	0.0031	0.0034
0.140	5.5	1*2116	59.0 $\pm$ 2.0	3.57	3.57	3.56	3.56	3.55	0.0022	0.0025	0.0028	0.0031	0.0034
0.152	6.0	2*1078	64.0 $\pm$ 2.0	3.44	3.44	3.43	3.43	3.42	0.0019	0.0022	0.0025	0.0028	0.0031
0.203	8.0	2*3313	56.0 $\pm$ 2.0	3.65	3.65	3.64	3.64	3.63	0.0023	0.0026	0.0029	0.0032	0.0035
0.254	10.0	2*2116	55.0 $\pm$ 2.0	3.67	3.67	3.66	3.66	3.65	0.0023	0.0026	0.0029	0.0032	0.0035
0.306	12.0	3*3313	56.0 $\pm$ 2.0	3.65	3.65	3.64	3.64	3.63	0.0023	0.0026	0.0029	0.0032	0.0035
0.406	16.0	4*2116	47.0 $\pm$ 2.0	3.76	3.76	3.75	3.75	3.74	0.0026	0.0030	0.0033	0.0036	0.0040
0.508	20.0	5*2116	47.0 $\pm$ 2.0	3.76	3.76	3.75	3.75	3.74	0.0026	0.0030	0.0033	0.0036	0.0040
0.635	25.0	5*2116	55.0 $\pm$ 2.0	3.67	3.67	3.66	3.66	3.65	0.0023	0.0026	0.0029	0.0032	0.0035
0.711	28.0	7*2116	47.0 $\pm$ 2.0	3.76	3.76	3.75	3.75	3.74	0.0026	0.0030	0.0033	0.0036	0.0040
0.762	30.0	6*2116	55.0 $\pm$ 2.0	3.67	3.67	3.66	3.66	3.65	0.0023	0.0026	0.0029	0.0032	0.0035

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## 2.Prepreg (Synamic8GB)

Glass style	Glass weight (g/m <sup>2</sup> )	Thickness		RC (%)	Typical Dk (±0.2)					Typical Df (±0.0003)				
		um	mil		1 GHz	3GHz	5GHz	10 GHz	15GHz	1 GHz	3GHz	5GHz	10 GHz	15GHz
1035	30±2.0	64	2.5	72.0±2.0	3.23	3.23	3.22	3.22	3.21	0.0016	0.0019	0.0022	0.0025	0.0028
		68	2.7	74.0±2.0	3.17	3.17	3.16	3.16	3.15	0.0015	0.0018	0.0021	0.0024	0.0027
1078	47±2.0	76	3.0	64.0±2.0	3.44	3.44	3.43	3.43	3.42	0.0019	0.0022	0.0025	0.0028	0.0031
		84	3.3	67.0±2.0	3.34	3.34	3.33	3.33	3.32	0.0018	0.0021	0.0024	0.0027	0.0030
		89	3.5	69.0±2.0	3.29	3.29	3.28	3.28	3.27	0.0017	0.0020	0.0023	0.0026	0.0029
		102	4.0	72.0±2.0	3.20	3.20	3.19	3.19	3.18	0.0016	0.0019	0.0022	0.0025	0.0028
1080	48±2.0	89	3.5	69.0±2.0	3.29	3.29	3.28	3.28	3.27	0.0017	0.0020	0.0023	0.0026	0.0029
3313	81.4±2.0	102	4.0	56.0±2.0	3.65	3.65	3.64	3.64	3.63	0.0023	0.0026	0.0029	0.0032	0.0035
		114	4.5	60.0±2.0	3.54	3.54	3.53	3.53	3.52	0.0021	0.0024	0.0027	0.0030	0.0033
2116	104±2.0	127	5.0	55.0±2.0	3.67	3.67	3.66	3.66	3.65	0.0023	0.0026	0.0029	0.0032	0.0035
		139	5.5	59.0±2.0	3.57	3.57	3.56	3.56	3.55	0.0022	0.0025	0.0028	0.0031	0.0034

**Remark:**

- 1) Dk/Df measuring method: IPC TM-650 2.5.5.5;
- 2) The above data is for reference only. SYTECH reserves the right for any update.