

Based Material Line Up



Synamic 6N/Synamic 6NB

1. CORE (C-STAGE)

Thickness		ply-up	RC (%)	Dk					Df				
mm	mil			1 GHz	3 GHz	5 GHz	10 GHz	15GHz	1 GHz	3 GHz	5 GHz	10 GHz	15GHz
0.051	2.00	1*1035	70	3.17	3.17	3.17	3.17	3.16	0.0014	0.0016	0.0018	0.0020	0.0022
0.064	2.50	1*1035	76	3.08	3.08	3.08	3.08	3.07	0.0013	0.0015	0.0017	0.0019	0.0021
0.076	3.00	1*1078	68	3.20	3.20	3.20	3.20	3.19	0.0014	0.0016	0.0018	0.0020	0.0022
0.076	3.00	1*1080	68	3.20	3.20	3.20	3.20	3.19	0.0014	0.0016	0.0018	0.0020	0.0022
0.089	3.50	1*1078	72	3.14	3.14	3.14	3.14	3.13	0.0013	0.0015	0.0017	0.0019	0.0021
0.089	3.50	1*1080	72	3.14	3.14	3.14	3.14	3.13	0.0013	0.0015	0.0017	0.0019	0.0021
0.102	4.00	1*3313	60	3.32	3.32	3.32	3.32	3.31	0.0014	0.0016	0.0018	0.0020	0.0022
0.102	4.00	2*1035	70	3.17	3.17	3.17	3.17	3.16	0.0014	0.0016	0.0018	0.0020	0.0022
0.114	4.50	1*3313	64	3.26	3.26	3.26	3.26	3.25	0.0014	0.0016	0.0018	0.0020	0.0022
0.127	5.00	1*2116	59	3.35	3.35	3.35	3.35	3.34	0.0015	0.0017	0.0019	0.0021	0.0023
0.127	5.00	2*1035	76	3.08	3.08	3.08	3.08	3.07	0.0013	0.0015	0.0017	0.0019	0.0021
0.127	5.00	2*1078	62	3.29	3.29	3.29	3.29	3.28	0.0014	0.0016	0.0018	0.0020	0.0022
0.140	5.50	1*2116	62	3.29	3.29	3.29	3.29	3.28	0.0014	0.0016	0.0018	0.0020	0.0022
0.145	5.70	2*1078	67	3.22	3.22	3.22	3.22	3.21	0.0014	0.0016	0.0018	0.0020	0.0022
0.152	6.00	2*1078	68	3.20	3.20	3.20	3.20	3.19	0.0014	0.0016	0.0018	0.0020	0.0022
0.152	6.00	2*1080	68	3.20	3.20	3.20	3.20	3.19	0.0014	0.0016	0.0018	0.0020	0.0022
0.178	7.00	2*1078	72	3.14	3.14	3.14	3.14	3.13	0.0013	0.0015	0.0017	0.0019	0.0021
0.178	7.00	2*1080	72	3.14	3.14	3.14	3.14	3.13	0.0013	0.0015	0.0017	0.0019	0.0021
0.203	8.00	2*3313	60	3.32	3.32	3.32	3.32	3.31	0.0014	0.0016	0.0018	0.0020	0.0022

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0.254	10.00	2*2116	59	3.35	3.35	3.35	3.35	3.34	0.0015	0.0017	0.0019	0.0021	0.0023
0.306	12.00	3*3313	60	3.32	3.32	3.32	3.32	3.31	0.0014	0.0016	0.0018	0.0020	0.0022
0.381	15.00	3*2116	59	3.35	3.35	3.35	3.35	3.34	0.0015	0.0017	0.0019	0.0021	0.0023
0.508	20.00	4*2116	59	3.35	3.35	3.35	3.35	3.34	0.0015	0.0017	0.0019	0.0021	0.0023
0.635	25.00	5*2116	59	3.35	3.35	3.35	3.35	3.34	0.0015	0.0017	0.0019	0.0021	0.0023
0.762	30.00	6*2116	59	3.35	3.35	3.35	3.35	3.34	0.0015	0.0017	0.0019	0.0021	0.0023
0.889	35.00	7*2116	59	3.35	3.35	3.35	3.35	3.34	0.0015	0.0017	0.0019	0.0021	0.0023
1.016	40.00	8*2116	59	3.35	3.35	3.35	3.35	3.34	0.0015	0.0017	0.0019	0.0021	0.0023

2. PREPREG (B-STAGE)

Glass style	Fiber Glass Weight (g/m ²)	RC (%) Nominal	Thickness		Dk					Df				
			mm	mil	1GHz	3GHz	5GHz	10GHz	15GHz	1 GHz	3 GHz	5 GHz	10 GHz	15GHz
1035	26	70	0.051	2.00	3.17	3.17	3.17	3.17	3.16	0.0014	0.0016	0.0018	0.0020	0.0022
1035	26	76	0.064	2.50	3.08	3.08	3.08	3.08	3.07	0.0013	0.0015	0.0017	0.0019	0.0021
1035	26	78	0.069	2.70	3.03	3.03	3.03	3.03	3.02	0.0013	0.0015	0.0017	0.0019	0.0021
1078	42	68	0.076	3.00	3.20	3.20	3.20	3.20	3.19	0.0014	0.0016	0.0018	0.0020	0.0022
1078	42	72	0.089	3.50	3.14	3.14	3.14	3.14	3.13	0.0013	0.0015	0.0017	0.0019	0.0021
1078	42	76	0.102	4.00	3.08	3.08	3.08	3.08	3.07	0.0013	0.0015	0.0017	0.0019	0.0021
1078	42	78	0.114	4.50	3.03	3.03	3.03	3.03	3.02	0.0013	0.0015	0.0017	0.0019	0.0021
1080	42	68	0.076	3.00	3.20	3.20	3.20	3.20	3.19	0.0014	0.0016	0.0018	0.0020	0.0022
1080	42	72	0.089	3.50	3.14	3.14	3.14	3.14	3.13	0.0013	0.0015	0.0017	0.0019	0.0021
3313	71	60	0.102	4.00	3.32	3.32	3.32	3.32	3.31	0.0014	0.0016	0.0018	0.0020	0.0022
3313	71	64	0.114	4.50	3.26	3.26	3.26	3.26	3.25	0.0014	0.0016	0.0018	0.0020	0.0022
2116	93	59	0.127	5.00	3.35	3.35	3.35	3.35	3.34	0.0015	0.0017	0.0019	0.0021	0.0023
2116	93	62	0.140	5.50	3.29	3.29	3.29	3.29	3.28	0.0014	0.0016	0.0018	0.0020	0.0022

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3. REMARK

- 1) Dk/Df test method: IPC TM-650 2.5.5.5
- 2) The above PP thickness data is for reference only, and PCB need to evaluate the corresponding data according to pressing profile and actual pressing condition.
- 3) For laminate orders, we will follow metric thickness accuracy of 3 decimal places for control.
- 4) Updated date: December, 2025
- 5) All the values listed above are for your reference only. Please contact Shengyi Technology Co., Ltd. for detailed information. All rights from this line up are reserved by Shengyi Technology Co., Ltd.