Drilling Feed & Speed Chart for

GETEKÒ II PCB Material

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Recommended Tycom Drill Series: Series 100, 150, 450, 460, 475, 480, 500, 580

(Note: Chart is based on 160K RPM Spindle Capability. Please use maximum spindle speed if listed RPM is unattainable)

Size	Diameter	Feed	Speed	Retract	Z-Axis Offset	Max Hits	Chipload	SFM
	(inch)	*(Inches/min)*	*(k-rpm)*	*(inches/min)*	*(inches)*		*(mils/rev)*	
0.10mm	0.0040	37	160	200	-0.011	500	0.23	167
0.13mm	0.0050	40	160	300	-0.011	500	0.25	209
0.15mm	0.0059	48	160	300	-0.011	500	0.30	247
#96	0.0063	53	160	400	-0.011	500	0.33	264
#95	0.0067	59	160	400	-0.012	500	0.37	281
#94	0.0071	64	160	500	-0.012	500	0.40	297
#93	0.0075	69	160	500	-0.012	500	0.43	314
#92	0.0079	75	160	500	-0.012	500	0.47	331
#91	0.0083	80	160	600	-0.012	500	0.50	347
#90	0.0087	85	160	600	-0.012	500	0.53	364
#89	0.0091	91	160	700	-0.012	500	0.57	381
#88	0.0095	96	160	700	-0.012	500	0.60	398
0.25mm	0.0098	98	160	800	-0.012	500	0.61	410
#87	0.0100	98	159	800	-0.012	500	0.62	415
#86	0.0105	99	151	800	-0.012	500	0.66	415
#85	0.0110	100	144	900	-0.013	650	0.69	415
#84	0.0115	101	138	900	-0.013	650	0.73	415
0.30mm	0.0118	103	134	1000	-0.013	650	0.77	415
#83	0.0120	104	132	1000	-0.013	650	0.79	415
#82	0.0125	105	127	1000	-0.013	650	0.83	415
#81	0.0130	106	122	1000	-0.013	650	0.87	415
#80	0.0135	110	117	1000	-0.013	800	0.94	415
0.35mm	0.0138	110	115	1000	-0.013	800	0.96	415
#79	0.0145	110	109	1000	-0.013	800	1.01	415
1/64	0.0156	111	102	1000	-0.014	800	1.09	415
0.40mm	0.0158	111	100	1000	-0.014	800	1.11	415
#78	0.0160	112	99	1000	-0.014	800	1.13	415
0.45mm	0.0177	104	90	1000	-0.014	800	1.16	415
#77	0.0180	104	88	1000	-0.014	800	1.18	415
0.50mm	0.0197	96	81	1000	-0.015	1000	1.19	415
#76	0.0200	95	79	1000	-0.015	1000	1.20	415
#75	0.0210	92	76	1000	-0.015	1000	1.21	415
0.55mm	0.0217	89	73	1000	-0.015	1000	1.22	415
#74	0.0225	86	70	1000	-0.015	1000	1.23	415
0.60mm	0.0236	83	67	1000	-0.016	1000	1.24	415
#73	0.0240	82	66	1000	-0.016	1000	1.24	415

Size	Diameter	Feed	Speed	Retract	Z-Axis Offset	Hits	Chipload	SFM
	(inch)	*(Inches/min)*	*(k-rpm)*	*(inches/min)*	*(inches)*		*(mils/rev)*	
#72	0.0250	79	63	1000	-0.016	1000	1.25	415
0.65mm	0.0256	78	62	1000	-0.016	1000	1.26	415
#71	0.0260	77	61	1000	-0.016	1000	1.26	415
0.70mm	0.0276	77	57	1000	-0.016	1000	1.35	415
#70	0.0280	77	57	1000	-0.017	1000	1.35	415
#69	0.0292	77	54	1000	-0.017	1000	1.43	415
0.75mm	0.0295	77	54	1000	-0.017	1000	1.43	415
#68	0.0310	77	51	1000	-0.017	1000	1.51	415
1/32	0.0312	77	51	1000	-0.017	1000	1.51	415
0.80mm	0.0315	77	50	1000	-0.017	1000	1.54	415
#67	0.0320	77	50	1000	-0.017	1000	1.54	415
#66	0.0330	77	48	1000	-0.018	1000	1.60	415
0.85mm	0.0335	77	47	1000	-0.018	1000	1.64	415
#65	0.0350	77	45	1000	-0.018	1000	1.71	415
0.90mm	0.0354	77	45	1000	-0.018	1000	1.71	415
#64	0.0360	77	44	1000	-0.018	1000	1.75	415
#63	0.0370	77	43	1000	-0.019	1000	1.79	415
0.95mm	0.0374	77	42	1000	-0.019	1000	1.83	415
#62	0.0380	77	42	1000	-0.019	1000	1.83	415
#61	0.0390	77	41	1000	-0.019	1000	1.88	415
1.00mm	0.0394	77	40	1000	-0.019	1000	1.93	415
#60	0.0400	77	40	1000	-0.019	1000	1.93	415
#59	0.0410	77	39	1000	-0.020	1000	1.97	415
1.05mm	0.0413	77	38	1000	-0.020	1000	2.03	415
#58	0.0420	77	38	1000	-0.020	1000	2.03	415
#57	0.0430	77	37	1000	-0.020	1000	2.08	415
1.10mm	0.0433	77	37	1000	-0.020	1000	2.08	415
1.15mm	0.0453	77	35	1000	-0.021	1000	2.20	415
#56	0.0465	76	34	1000	-0.021	1000	2.24	415
3/64	0.0469	76	34	1000	-0.021	1000	2.24	415
1.20mm	0.0472	76	34	1000	-0.021	1000	2.24	415
1.25mm	0.0492	76	32	1000	-0.021	800	2.38	415
1.30mm	0.0512	76	31	1000	-0.022	800	2.45	415
#55	0.0520	76	30	1000	-0.022	800	2.50	415
1.35mm	0.0531	75	30	1000	-0.022	800	2.50	415
#54	0.0550	73	29	1000	-0.023	800	2.50	415
1.40mm	0.0551	73	29	1000	-0.023	800	2.50	415
1.45mm	0.0571	70	28	1000	-0.023	800	2.50	415
1.50mm	0.0591	68	27	1000	-0.024	800	2.50	415
#53	0.0595	68	27	1000	-0.024	800	2.50	415
1.55mm	0.0610	65	26	1000	-0.024	800	2.50	415
1/16	0.0625	63	25	1000	-0.025	800	2.50	415
1.60mm	0.0630	63	25	1000	-0.025	800	2.50	415
#52	0.0635	63	25	1000	-0.025	800	2.50	415
1.65mm	0.0650	60	24	1000	-0.025	800	2.50	415
1.70mm	0.0669	60	24	1000	-0.026	800	2.50	415
#51	0.0670	60	24	1000	-0.026	800	2.50	415
1.75mm	0.0689	58	23	1000	-0.026	800	2.50	415

Size	Diameter	Feed	Speed	Retract	Z-Axis Offset	Hits	Chipload	SFM
	(inch)	*(Inches/min)*	*(k-rpm)*	*(inches/min)*	*(inches)*		*(mils/rev)*	
#50	0.0700	58	23	1000	-0.026	800	2.50	415
1.80mm	0.0709	55	22	1000	-0.027	650	2.50	415
1.85mm	0.0728	55	22	1000	-0.027	650	2.50	415
#49	0.0730	55	22	1000	-0.027	650	2.50	415
1.90mm	0.0748	53	21	1000	-0.027	650	2.50	415
#48	0.0760	53	21	1000	-0.028	650	2.50	415
1.95mm	0.0768	53	21	1000	-0.028	650	2.50	415
5/64	0.0781	50	20	1000	-0.028	650	2.50	415
#47	0.0785	50	20	1000	-0.028	650	2.50	415
2.00mm	0.0787	50	20	1000	-0.028	650	2.50	415
2.05mm	0.0807	50	20	1000	-0.029	650	2.50	422
#46	0.0810	50	20	1000	-0.029	650	2.50	424
#45	0.0820	50	20	1000	-0.029	650	2.50	429
2.10mm	0.0827	50	20	1000	-0.029	650	2.50	433
2.15mm	0.0846	50	20	1000	-0.030	650	2.50	443
#44	0.0860	50	20	1000	-0.030	650	2.50	450
2.20mm	0.0866	50	20	1000	-0.030	650	2.50	453
2.25mm	0.0886	50	20	1000	-0.031	650	2.50	464
#43	0.0890	50	20	1000	-0.031	650	2.50	466
2.30mm	0.0906	50	20	1000	-0.031	500	2.50	474
2.35mm	0.0925	50	20	1000	-0.032	500	2.50	484
#42	0.0935	50	20	1000	-0.032	500	2.50	489
3/32	0.0938	50	20	1000	-0.032	500	2.50	491
2.40mm	0.0945	50	20	1000	-0.032	500	2.50	495
#41	0.0960	50	20	1000	-0.032	500	2.50	502
2.45mm	0.0965	50	20	1000	-0.033	500	2.50	505
#40	0.0980	50	20	1000	-0.033	500	2.50	513
2.50mm	0.0984	50	20	1000	-0.033	500	2.50	515
#39	0.0995	50	20	1000	-0.033	500	2.50	521
2.55mm	0.1004	50	20	1000	-0.033	500	2.50	525
#38	0.1015	50	20	1000	-0.034	500	2.50	531
2.60mm	0.1024	50	20	1000	-0.034	500	2.50	536
#37	0.1040	50	20	1000	-0.034	500	2.50	544
2.65mm	0.1043	50	20	1000	-0.034	500	2.50	546
2.70mm	0.1063	50	20	1000	-0.035	500	2.50	556
#36	0.1065	50	20	1000	-0.035	500	2.50	557
2.75mm	0.1083	50	20	1000	-0.035	500	2.50	567
7/64	0.1094	50	20	1000	-0.036	500	2.50	573
#35	0.1100	50	20	1000	-0.036	500	2.50	576
2.80mm	0.1102	50	20	1000	-0.036	500	2.50	577
#34	0.1110	50	20	1000	-0.036	500	2.50	581
2.85mm	0.1122	50	20	1000	-0.036	500	2.50	587
#33	0.1130	50	20	1000	-0.036	500	2.50	591
2.90mm	0.1142	50	20	1000	-0.037	500	2.50	598
#32	0.1160	50	20	1000	-0.037	500	2.50	607
2.95mm	0.1161	50	20	1000	-0.037	500	2.50	608
3.00mm	0.1181	50	20	1000	-0.038	500	2.50	618
#31	0.1200	50	20	1000	-0.038	500	2.50	628

Size	Diameter	Feed	Speed	Retract	Z-Axis Offset	Hits	Chipload	SFM
	(inch)	*(Inches/min)*	*(k-rpm)*	*(inches/min)*	*(inches)*		*(mils/rev)*	
3.05mm	0.1201	50	20	1000	-0.038	500	2.50	629
3.10mm	0.1220	50	20	1000	-0.038	500	2.50	638
3.15mm	0.1240	50	20	1000	-0.039	500	2.50	649
1/8	0.1250	50	20	1000	-0.039	500	2.50	654
3.20mm	0.1260	50	20	1000	-0.018	400	2.50	659
3.25mm	0.1280	50	20	1000	-0.018	400	2.50	670
#30	0.1285	50	20	1000	-0.019	400	2.50	672
3.30mm	0.1299	50	20	1000	-0.019	400	2.50	680
3.35mm	0.1319	50	20	1000	-0.019	400	2.50	690
3.40mm	0.1339	50	20	1000	-0.019	400	2.50	701
3.45mm	0.1358	50	20	1000	-0.019	400	2.50	711
#29	0.1360	50	20	1000	-0.019	400	2.50	712
3.50mm	0.1378	50	20	1000	-0.019	400	2.50	721
3.55mm	0.1398	50	20	1000	-0.019	400	2.50	732
#28	0.1405	50	20	1000	-0.019	400	2.50	735
9/64	0.1406	50	20	1000	-0.019	400	2.50	736
3.60mm	0.1417	50	20	1000	-0.019	400	2.50	742
3.65mm	0.1437	50	20	1000	-0.020	400	2.50	752
#27	0.1440	50	20	1000	-0.020	400	2.50	754
3.70mm	0.1457	50	20	1000	-0.020	400	2.50	762
#26	0.1470	50	20	1000	-0.020	400	2.50	769
3.75mm	0.1476	50	20	1000	-0.020	400	2.50	772
#25	0.1495	50	20	1000	-0.020	400	2.50	782
3.80mm	0.1496	50	20	1000	-0.020	400	2.50	783
3.85mm	0.1516	50	20	1000	-0.020	400	2.50	793
#24	0.1520	50	20	1000	-0.020	400	2.50	795
3.90mm	0.1535	50	20	1000	-0.020	400	2.50	803
#23	0.1540	50	20	1000	-0.020	400	2.50	806
3.95	0.1555	50	20	1000	-0.020	400	2.50	814
5/32	0.1562	50	20	1000	-0.020	400	2.50	817
#22	0.1570	50	20	1000	-0.020	400	2.50	822
4.00mm	0.1575	50	20	1000	-0.020	400	2.50	824
#21	0.1590	40	20	1000	-0.021	250	2.00	832
4.05mm	0.1594	40	20	1000	-0.021	250	2.00	834
#20	0.1610	40	20	1000	-0.021	250	2.00	843
4.10mm	0.1614	40	20	1000	-0.021	250	2.00	845
4.15mm	0.1634	40	20	1000	-0.021	250	2.00	855
4.20mm	0.1654	40	20	1000	-0.021	250	2.00	866
#19	0.1660	40	20	1000	-0.021	250	2.00	869
4.25mm	0.1673	40	20	1000	-0.021	250	2.00	876
4.30mm	0.1693	40	20	1000	-0.021	250	2.00	886
#18	0.1695	40	20	1000	-0.021	250	2.00	887
4.35mm	0.1713	40	20	1000	-0.021	250	2.00	896
11/64	0.1719	40	20	1000	-0.021	250	2.00	900
#17	0.1730	40	20	1000	-0.021	250	2.00	905
4.40mm	0.1732	40	20	1000	-0.021	250	2.00	906
4.45mm	0.1752	40	20	1000	-0.022	250	2.00	917
#16	0.1770	40	20	1000	-0.022	250	2.00	926

Size	Diameter	Feed	Speed	Retract	Z-Axis Offset	Hits	Chipload	SFM
	(inch)	*(Inches/min)*	*(k-rpm)*	*(inches/min)*	*(inches)*		*(mils/rev)*	
4.50mm	0.1772	40	20	1000	-0.022	250	2.00	927
4.55mm	0.1792	40	20	1000	-0.022	250	2.00	938
#15	0.1800	40	20	1000	-0.022	250	2.00	942
4.60mm	0.1811	40	20	1000	-0.022	250	2.00	948
#14	0.1820	40	20	1000	-0.022	250	2.00	952
4.65mm	0.1831	40	20	1000	-0.022	250	2.00	958
#13	0.1850	40	20	1000	-0.022	250	2.00	968
4.70mm	0.1850	40	20	1000	-0.022	250	2.00	968
4.75mm	0.1870	40	20	1000	-0.022	250	2.00	979
3/16	0.1875	40	20	1000	-0.022	250	2.00	981
4.80mm	0.1890	30	20	1000	-0.023	200	1.50	989
#12	0.1890	30	20	1000	-0.023	200	1.50	989
4.85mm	0.1909	30	20	1000	-0.023	200	1.50	999
#11	0.1910	30	20	1000	-0.023	200	1.50	1000
4.90mm	0.1929	30	20	1000	-0.023	200	1.50	1010
#10	0.1935	30	20	1000	-0.023	200	1.50	1013
4.95mm	0.1949	30	20	1000	-0.023	200	1.50	1020
#9	0.1960	30	20	1000	-0.023	200	1.50	1026
5.00mm	0.1968	30	20	1000	-0.023	200	1.50	1030
5.05mm	0.1988	30	20	1000	-0.023	200	1.50	1040
#8	0.1990	30	20	1000	-0.023	200	1.50	1041
5.10mm	0.2008	30	20	1000	-0.023	200	1.50	1051
#7	0.2010	30	20	1000	-0.023	200	1.50	1052
5.15mm	0.2028	30	20	1000	-0.023	200	1.50	1061
13/64	0.2031	30	20	1000	-0.023	200	1.50	1063
#6	0.2040	30	20	1000	-0.024	200	1.50	1068
5.20mm	0.2047	30	20	1000	-0.024	200	1.50	1071
#5	0.2055	30	20	1000	-0.024	200	1.50	1075
5.25mm	0.2067	30	20	1000	-0.024	200	1.50	1082
5.30mm	0.2087	30	20	1000	-0.024	200	1.50	1092
#4	0.2090	30	20	1000	-0.024	200	1.50	1094
5.35mm	0.2106	30	20	1000	-0.024	200	1.50	1102
5.40mm	0.2126	30	20	1000	-0.024	200	1.50	1113
#3	0.2130	30	20	1000	-0.024	200	1.50	1115
5.45mm	0.2146	30	20	1000	-0.024	200	1.50	1123
5.50mm	0.2165	30	20	1000	-0.024	200	1.50	1133
5.55mm	0.2185	30	20	1000	-0.024	200	1.50	1143
7/32	0.2188	30	20	1000	-0.024	200	1.50	1145
5.60mm	0.2205	30	20	1000	-0.025	200	1.50	1154
#2	0.2210	30	20	1000	-0.025	200	1.50	1157
5.65mm	0.2224	30	20	1000	-0.025	150	1.50	1164
5.70mm	0.2244	30	20	1000	-0.025	150	1.50	1174
5.75mm	0.2264	30	20	1000	-0.025	150	1.50	1185
#1	0.2280	30	20	1000	-0.025	150	1.50	1193
5.80mm	0.2283	30	20	1000	-0.025	150	1.50	1195
5.85mm	0.2302	30	20	1000	-0.025	150	1.50	1205
5.90mm	0.2323	30	20	1000	-0.025	150	1.50	1216
A	0.2340	30	20	1000	-0.025	150	1.50	1225

Size	Diameter	Feed	Speed	Retract	Z-Axis Offset	Hits	Chipload	SFM
	(inch)	*(Inches/min)*	*(k-rpm)*	*(inches/min)*	*(inches)*		*(mils/rev)*	
5.95mm	0.2343	30	20	1000	-0.026	150	1.50	1226
15/64	0.2344	30	20	1000	-0.026	150	1.50	1227
6.00mm	0.2362	30	20	1000	-0.026	150	1.50	1236
B	0.2380	30	20	1000	-0.026	150	1.50	1246
6.05mm	0.2382	30	20	1000	-0.026	150	1.50	1247
6.10mm	0.2402	30	20	1000	-0.026	150	1.50	1257
C	0.2420	30	20	1000	-0.026	150	1.50	1266
6.15mm	0.2421	30	20	1000	-0.026	150	1.50	1267
6.20mm	0.2441	30	20	1000	-0.026	150	1.50	1277
D	0.2460	30	20	1000	-0.026	150	1.50	1287
6.25mm	0.2461	30	20	1000	-0.026	150	1.50	1288
6.30mm	0.2480	30	20	1000	-0.026	150	1.50	1298
6.35mm	0.2500	30	20	1000	-0.027	150	1.50	1308
6.40mm	0.2520	30	20	1000	-0.027	150	1.50	1319
6.50mm	0.2559	30	20	1000	-0.027	150	1.50	1339
F	0.2570	30	20	1000	-0.027	150	1.50	1345
6.60mm	0.2598	30	20	1000	-0.027	150	1.50	1360

In some cases, there may be an opportunity to increase the chipload based on the application's robustness. Variables such as machine technology and condition, stack support materials, and Tycom design selection may allow the increased throughput with higher chiploads. Multiply the recommended chipload by 1.15 to reach the higher chipload.

If the application is not as robust due to heavy glass, high copper content, tight annular ring requirements, or similar, multiply the recommended chipload by 0.85.