Drilling Feed & Speed Chart for

GETEKÒ PCB Material Back Panel Format

(Panel Thickness > 0.150-inch) GETEKÒ is a registered trademark of GE Electromaterials

Recommended Tycom Drill Series: Series 100, 150, 480, 490, 580

(Note: Chart is based on 120K 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)*	
0.25mm	0.0098	59	120	200	-0.012	400	0.49	308
#87	0.0100	61	120	300	-0.012	400	0.51	314
#86	0.0105	65	120	300	-0.012	400	0.54	330
#85	0.0110	68	120	400	-0.013	500	0.57	345
#84	0.0115	72	120	400	-0.013	500	0.60	350
0.30mm	0.0118	73	120	500	-0.013	500	0.61	350
#83	0.0120	75	120	500	-0.013	500	0.63	350
#82	0.0125	79	120	500	-0.013	500	0.66	350
#81	0.0130	82	120	600	-0.013	500	0.68	350
#80	0.0135	84	117	600	-0.013	650	0.72	350
0.35mm	0.0138	86	115	700	-0.013	650	0.75	350
#79	0.0145	87	109	700	-0.013	650	0.80	350
1/64	0.0156	92	102	800	-0.014	650	0.90	350
0.40mm	0.0158	93	100	800	-0.014	650	0.93	350
#78	0.0160	94	99	800	-0.014	650	0.95	350
0.45mm	0.0177	96	90	900	-0.014	650	1.07	350
#77	0.0180	97	88	900	-0.014	650	1.10	350
0.50mm	0.0197	100	81	1000	-0.015	800	1.23	350
#76	0.0200	101	79	1000	-0.015	800	1.28	350
#75	0.0210	105	76	1000	-0.015	800	1.38	350
0.55mm	0.0217	107	73	1000	-0.015	800	1.47	350
#74	0.0225	108	70	1000	-0.015	800	1.54	350
0.60mm	0.0236	110	67	800	-0.016	800	1.64	350
#73	0.0240	111	66	900	-0.016	800	1.68	350
#72	0.0250	112	63	900	-0.016	800	1.78	350
0.65mm	0.0256	112	62	900	-0.016	800	1.81	350
#71	0.0260	113	61	1000	-0.016	800	1.85	350
0.70mm	0.0276	113	57	1000	-0.016	800	1.98	350
#70	0.0280	113	57	1000	-0.017	800	1.98	350
#69	0.0292	113	54	1000	-0.017	800	2.09	350
0.75mm	0.0295	113	54	1000	-0.017	800	2.09	350
#68	0.0310	112	51	1000	-0.017	800	2.20	350
1/32	0.0312	112	51	1000	-0.017	800	2.20	350
0.80mm	0.0315	112	50	1000	-0.017	800	2.24	350
#67	0.0320	111	50	1000	-0.017	800	2.22	350
#66	0.0330	109	48	1000	-0.018	800	2.27	350

Size	Diameter	Feed	Speed	Retract	Z-Axis Offset	Hits	Chipload	SFM
	(inch)	*(Inches/min)*	*(k-rpm)*	*(inches/min)*	*(inches)*		*(mils/rev)*	
0.85mm	0.0335	108	47	1000	-0.018	800	2.30	350
#65	0.0350	107	45	1000	-0.018	800	2.38	350
0.90mm	0.0354	107	45	1000	-0.018	800	2.38	350
#64	0.0360	106	44	1000	-0.018	800	2.41	350
#63	0.0370	105	43	1000	-0.019	800	2.44	350
0.95mm	0.0374	105	42	1000	-0.019	800	2.50	350
#62	0.0380	104	42	1000	-0.019	800	2.48	350
#61	0.0390	103	41	1000	-0.019	800	2.51	350
1.00mm	0.0394	103	40	1000	-0.019	800	2.58	350
#60	0.0400	102	40	1000	-0.019	800	2.55	350
#59	0.0410	100	39	1000	-0.020	800	2.56	350
1.05mm	0.0413	100	38	1000	-0.020	800	2.63	350
#58	0.0420	99	38	1000	-0.020	800	2.61	350
#57	0.0430	97	37	1000	-0.020	800	2.62	350
1.10mm	0.0433	97	37	1000	-0.020	800	2.62	350
1.15mm	0.0453	92	35	1000	-0.021	800	2.63	350
#56	0.0465	89	34	1000	-0.021	800	2.62	350
3/64	0.0469	89	34	1000	-0.021	800	2.62	350
1.20mm	0.0472	89	34	1000	-0.021	800	2.62	350
1.25mm	0.0492	84	32	1000	-0.021	650	2.63	350
1.30mm	0.0512	81	31	1000	-0.022	650	2.50	350
#55	0.0520	79	30	1000	-0.022	650	2.50	350
1.35mm	0.0531	79	30	1000	-0.022	650	2.50	350
#54	0.0550	76	29	1000	-0.023	650	2.50	350
1.40mm	0.0551	76	29	1000	-0.023	650	2.50	350
1.45mm	0.0571	73	28	1000	-0.023	650	2.61	350
1.50mm	0.0591	71	27	1000	-0.024	650	2.63	350
#53	0.0595	71	27	1000	-0.024	650	2.63	350
1.55mm	0.0610	68	26	1000	-0.024	650	2.62	350
1/16	0.0625	65	25	1000	-0.025	650	2.60	350
1.60mm	0.0630	65	25	1000	-0.025	650	2.60	350
#52	0.0635	65	25	1000	-0.025	650	2.60	350
1.65mm	0.0650	63	24	1000	-0.025	650	2.63	350
1.70mm	0.0669	63	24	1000	-0.026	650	2.63	350
#51	0.0670	63	24	1000	-0.026	650	2.63	350
1.75mm	0.0689	60	23	1000	-0.026	650	2.61	415
#50	0.0700	60	23	1000	-0.026	650	2.61	421
1.80mm	0.0709	58	22	1000	-0.027	500	2.64	408
1.85mm	0.0728	58	22	1000	-0.027	500	2.64	419
#49	0.0730	58	22	1000	-0.027	500	2.64	420
1.90mm	0.0748	55	21	1000	-0.027	500	2.62	411
#48	0.0760	55	21	1000	-0.028	500	2.62	418
1.95mm	0.0768	55	21	1000	-0.028	500	2.62	422
5/64	0.0781	52	20	1000	-0.028	500	2.60	409
#47	0.0785	52	20	1000	-0.028	500	2.60	411
2.00mm	0.0787	52	20	1000	-0.028	500	2.60	412
2.05mm	0.0807	52	20	1000	-0.029	500	2.60	422
#46	0.0810	52	20	1000	-0.029	500	2.60	424

Size	Diameter	Feed	Speed	Retract	Z-Axis Offset	Hits	Chipload	SFM
	(inch)	*(Inches/min)*	*(k-rpm)*	*(inches/min)*	*(inches)*		*(mils/rev)*	
#45	0.0820	52	20	1000	-0.029	500	2.60	429
2.10mm	0.0827	52	20	1000	-0.029	500	2.60	433
2.15mm	0.0846	52	20	1000	-0.030	500	2.60	443
#44	0.0860	52	20	1000	-0.030	500	2.60	450
2.20mm	0.0866	52	20	1000	-0.030	500	2.60	453
2.25mm	0.0886	52	20	1000	-0.031	500	2.60	464
#43	0.0890	52	20	1000	-0.031	500	2.60	466
2.30mm	0.0906	52	20	1000	-0.031	400	2.60	474
2.35mm	0.0925	52	20	1000	-0.032	400	2.60	484
#42	0.0935	52	20	1000	-0.032	400	2.60	489
3/32	0.0938	52	20	1000	-0.032	400	2.60	491
2.40mm	0.0945	52	20	1000	-0.032	400	2.60	495
#41	0.0960	52	20	1000	-0.032	400	2.60	502
2.45mm	0.0965	52	20	1000	-0.033	400	2.60	505
#40	0.0980	52	20	1000	-0.033	400	2.60	513
2.50mm	0.0984	52	20	1000	-0.033	400	2.60	515
#39	0.0995	52	20	1000	-0.033	400	2.60	521
2.55mm	0.1004	52	20	1000	-0.033	400	2.60	525
#38	0.1015	52	20	1000	-0.034	400	2.60	531
2.60mm	0.1024	52	20	1000	-0.034	400	2.60	536
#37	0.1040	52	20	1000	-0.034	400	2.60	544
2.65mm	0.1043	52	20	1000	-0.034	400	2.60	546
2.70mm	0.1063	52	20	1000	-0.035	400	2.60	556
#36	0.1065	52	20	1000	-0.035	400	2.60	557
2.75mm	0.1083	52	20	1000	-0.035	400	2.60	567
7/64	0.1094	52	20	1000	-0.036	400	2.60	573
#35	0.1100	52	20	1000	-0.036	400	2.60	576
2.80mm	0.1102	52	20	1000	-0.036	400	2.60	577
#34	0.1110	52	20	1000	-0.036	400	2.60	581
2.85mm	0.1122	52	20	1000	-0.036	400	2.60	587
#33	0.1130	52	20	1000	-0.036	400	2.60	591
2.90mm	0.1142	52	20	1000	-0.037	400	2.60	598
#32	0.1160	52	20	1000	-0.037	400	2.60	607
2.95mm	0.1161	52	20	1000	-0.037	400	2.60	608
3.00mm	0.1181	52	20	1000	-0.038	400	2.60	618
#31	0.1200	52	20	1000	-0.038	400	2.60	628
3.05mm	0.1201	52	20	1000	-0.038	400	2.60	629
3.10mm	0.1220	52	20	1000	-0.038	400	2.60	638
3.15mm	0.1240	52	20	1000	-0.039	400	2.60	649
1/8	0.1250	52	20	1000	-0.039	400	2.60	654
3.20mm	0.1260	44	20	1000	-0.018	320	2.20	659
3.25mm	0.1280	44	20	1000	-0.018	320	2.20	670
#30	0.1285	44	20	1000	-0.019	320	2.20	672
3.30mm	0.1299	44	20	1000	-0.019	320	2.20	680
3.35mm	0.1319	44	20	1000	-0.019	320	2.20	690
3.40mm	0.1339	44	20	1000	-0.019	320	2.20	701
3.45mm	0.1358	44	20	1000	-0.019	320	2.20	711
#29	0.1360	44	20	1000	-0.019	320	2.20	712

Size	Diameter	Feed	Speed	Retract	Z-Axis Offset	Hits	Chipload	SFM
	(inch)	*(Inches/min)*	*(k-rpm)*	*(inches/min)*	*(inches)*		*(mils/rev)*	
3.50mm	0.1378	44	20	1000	-0.019	320	2.20	721
3.55mm	0.1398	44	20	1000	-0.019	320	2.20	732
#28	0.1405	44	20	1000	-0.019	320	2.20	735
9/64	0.1406	44	20	1000	-0.019	320	2.20	736
3.60mm	0.1417	44	20	1000	-0.019	320	2.20	742
3.65mm	0.1437	44	20	1000	-0.020	320	2.20	752
#27	0.1440	44	20	1000	-0.020	320	2.20	754
3.70mm	0.1457	44	20	1000	-0.020	320	2.20	762
#26	0.1470	44	20	1000	-0.020	320	2.20	769
3.75mm	0.1476	44	20	1000	-0.020	320	2.20	772
#25	0.1495	44	20	1000	-0.020	320	2.20	782
3.80mm	0.1496	44	20	1000	-0.020	320	2.20	783
3.85mm	0.1516	44	20	1000	-0.020	320	2.20	793
#24	0.1520	44	20	1000	-0.020	320	2.20	795
3.90mm	0.1535	44	20	1000	-0.020	320	2.20	803
#23	0.1540	44	20	1000	-0.020	320	2.20	806
3.95	0.1555	44	20	1000	-0.020	320	2.20	814
5/32	0.1562	44	20	1000	-0.020	320	2.20	817
#22	0.1570	44	20	1000	-0.020	320	2.20	822
4.00mm	0.1575	44	20	1000	-0.020	320	2.20	824
#21	0.1590	35	20	1000	-0.021	200	1.75	832
4.05mm	0.1594	35	20	1000	-0.021	200	1.75	834
#20	0.1610	35	20	1000	-0.021	200	1.75	843
4.10mm	0.1614	35	20	1000	-0.021	200	1.75	845
4.15mm	0.1634	35	20	1000	-0.021	200	1.75	855
4.20mm	0.1654	35	20	1000	-0.021	200	1.75	866
#19	0.1660	35	20	1000	-0.021	200	1.75	869
4.25mm	0.1673	35	20	1000	-0.021	200	1.75	876
4.30mm	0.1693	35	20	1000	-0.021	200	1.75	886
#18	0.1695	35	20	1000	-0.021	200	1.75	887
4.35mm	0.1713	35	20	1000	-0.021	200	1.75	896
11/64	0.1719	35	20	1000	-0.021	200	1.75	900
#17	0.1730	35	20	1000	-0.021	200	1.75	905
4.40mm	0.1732	35	20	1000	-0.021	200	1.75	906
4.45mm	0.1752	35	20	1000	-0.022	200	1.75	917
#16	0.1770	35	20	1000	-0.022	200	1.75	926
4.50mm	0.1772	35	20	1000	-0.022	200	1.75	927
4.55mm	0.1792	35	20	1000	-0.022	200	1.75	938
#15	0.1800	35	20	1000	-0.022	200	1.75	942
4.60mm	0.1811	35	20	1000	-0.022	200	1.75	948
#14	0.1820	35	20	1000	-0.022	200	1.75	952
4.65mm	0.1831	35	20	1000	-0.022	200	1.75	958
#13	0.1850	35	20	1000	-0.022	200	1.75	968
4.70mm	0.1850	35	20	1000	-0.022	200	1.75	968
4.75mm	0.1870	35	20	1000	-0.022	200	1.75	979
3/16	0.1875	35	20	1000	-0.022	200	1.75	981
4.80mm	0.1890	26	20	1000	-0.023	150	1.30	989
#12	0.1890	26	20	1000	-0.023	150	1.30	989

Size	Diameter	Feed	Speed	Retract	Z-Axis Offset	Hits	Chipload	SFM
4.85mm	0.1909	26	20	1000	-0.023	150	1.30	999
#11	0.1910	26	20	1000	-0.023	150	1.30	1000
4.90mm	0.1929	26	20	1000	-0.023	150	1.30	1010
#10	0.1935	26	20	1000	-0.023	150	1.30	1013
4.95mm	0.1949	26	20	1000	-0.023	150	1.30	1020
#9	0.1960	26	20	1000	-0.023	150	1.30	1026
5.00mm	0.1968	26	20	1000	-0.023	150	1.30	1030
5.05mm	0.1988	26	20	1000	-0.023	150	1.30	1040
#8	0.1990	26	20	1000	-0.023	150	1.30	1041
5.10mm	0.2008	26	20	1000	-0.023	150	1.30	1051
#7	0.2010	26	20	1000	-0.023	150	1.30	1052
5.15mm	0.2028	26	20	1000	-0.023	150	1.30	1061
13/64	0.2031	26	20	1000	-0.023	150	1.30	1063
#6	0.2040	26	20	1000	-0.024	150	1.30	1068
5.20mm	0.2047	26	20	1000	-0.024	150	1.30	1071
#5	0.2055	26	20	1000	-0.024	150	1.30	1075
5.25mm	0.2067	26	20	1000	-0.024	150	1.30	1082
5.30mm	0.2087	26	20	1000	-0.024	150	1.30	1092
#4	0.2090	26	20	1000	-0.024	150	1.30	1094
5.35mm	0.2106	26	20	1000	-0.024	150	1.30	1102
5.40mm	0.2126	26	20	1000	-0.024	150	1.30	1113
#3	0.2130	26	20	1000	-0.024	150	1.30	1115
5.45mm	0.2146	26	20	1000	-0.024	150	1.30	1123
5.50mm	0.2165	26	20	1000	-0.024	150	1.30	1133
5.55mm	0.2185	26	20	1000	-0.024	150	1.30	1143
7/32	0.2188	26	20	1000	-0.024	150	1.30	1145
5.60mm	0.2205	26	20	1000	-0.025	150	1.30	1154
#2	0.2210	26	20	1000	-0.025	150	1.30	1157
5.65mm	0.2224	26	20	1000	-0.025	120	1.30	1164
5.70mm	0.2244	26	20	1000	-0.025	120	1.30	1174
5.75mm	0.2264	26	20	1000	-0.025	120	1.30	1185
#1	0.2280	26	20	1000	-0.025	120	1.30	1193
5.80mm	0.2283	26	20	1000	-0.025	120	1.30	1195
5.85mm	0.2302	26	20	1000	-0.025	120	1.30	1205
5.90mm	0.2323	26	20	1000	-0.025	120	1.30	1216
A	0.2340	26	20	1000	-0.025	120	1.30	1225
5.95mm	0.2343	26	20	1000	-0.026	120	1.30	1226
15/64	0.2344	26	20	1000	-0.026	120	1.30	1227
6.00mm	0.2362	26	20	1000	-0.026	120	1.30	1236
B	0.2380	26	20	1000	-0.026	120	1.30	1246
6.05mm	0.2382	26	20	1000	-0.026	120	1.30	1247
6.10mm	0.2402	26	20	1000	-0.026	120	1.30	1257
C	0.2420	26	20	1000	-0.026	120	1.30	1266
6.15mm	0.2421	26	20	1000	-0.026	120	1.30	1267
6.20mm	0.2441	26	20	1000	-0.026	120	1.30	1277
D	0.2460	26	20	1000	-0.026	120	1.30	1287
6.25mm	0.2461	26	20	1000	-0.026	120	1.30	1288
6.30mm	0.2480	26	20	1000	-0.026	120	1.30	1298
6.35mm	0.2500	26	20	1000	-0.027	120	1.30	1308
6.40mm	0.2520	26	20	1000	-0.027	120	1.30	1319

Size	Diameter	Feed	Speed	Retract	Z-Axis Offset	Hits	Chipload	SFM
6.50mm	0.2559	26	20	1000	-0.027	120	1.30	1339
F	0.2570	26	20	1000	-0.027	120	1.30	1345
6.60mm	0.2598	26	20	1000	-0.027	120	1.30	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.