GCT GmbH

we are diamond

Parameter recommendation for routing of laminates with ceramic fillers and high Tg materials ≥ 200°C

RO4xxx, Arlon 25x, Isola IS620

GCT router type: 1750
Cutting speed: v = 180 m/min

D_1	n	fxy	Fxy	Fz	H	Depth
Router diameter	Spindle speed	Chip load	Feed rate	Infeed with pre drilling	Routing depth	into the back up
[mm]	[rpm]	[µm/1]	[m/min]	[m/min]	[mm]	[mm]
0.6	96000	2	0.2	0.6	1.5	0.4
0.8	71000	4	0.3	1.0	3.2	0.6
1.0	57000	6	0.4	1.5	3.2	0.8
1.2	48000	8	0.4	1.5	3.2	1.1
1.5	38000	13	0.5	1.5	3.2	1.1
1.6	36000	16	0.6	2.0	3.2	1.1
1.8	32000	23	0.7	2.0	4.8	1.1
2.0	29000	30	0.9	2.0	4.8	1.5
2.4	24000	40	1.0	2.0	4.8	1.5

General recommendations:

⇒ Pre drilling of the entry position.
⇒ Pre routing of the back up material.
⇒ Extraction at least 50 mbar at the pressure foot.
⇒ Max pressure at the pressure foot.

⇒ Follow the GCT check list for machining of PCB's.

Router specifications:

Edition: January 2013

Overall length: 38.2 -0.3mm
Flute length: L ±0.2 mm
Working length: < 0.85 x L
Nominal diameter: D_1 ±0.015 mm (at 3.175mm: -0.04mm)
Shank diameter: D = 3.175 -0.001 / -0.007 mm