

## Composite, Fiberglass & Phenolic Cutting ZrN Coated Router Bits Speed and Feed Chart

Material	Spindle Speed SFM*	Chip Load Per Tooth							
		#46093 1.2mm (0.047)	#46040 1/8" (0.125)	#46090/46091 1/8" (0.125)	#46042 3/16" (0.1875)	#46092 3/16" (0.1875)	#46043 1/4" (0.250)	#46094/46097 1/4" (0.250)	#46045 3/8" (0.375)
Composites	600 - 800	0.001" - 0.002"	0.002" - 0.004"	0.002" - 0.004"	0.002" - 0.004"	0.002" - 0.004"	0.003" - 0.005"	0.003" - 0.005"	0.003" - 0.005"
Fiberglass	800 - 1,200	0.001" - 0.002"	0.003" - 0.005"	0.002" - 0.004"	0.003" - 0.005"	0.002" - 0.004"	0.003" - 0.005"	0.003" - 0.005"	0.003" - 0.005"
Phenolic	800 - 1,200	0.001" - 0.002"	0.003" - 0.005"	0.002" - 0.004"	0.003" - 0.005"	0.002" - 0.004"	0.004" - 0.006"	0.003" - 0.005"	0.004" - 0.006"
Aluminum	600 - 300	0.001" - 0.002"	0.003" - 0.005"	0.002" - 0.004"	0.003" - 0.005"	0.002" - 0.004"	0.004" - 0.006"	0.003" - 0.005"	0.004" - 0.006"

**Operating RPM:** 18,000

**SFM\*** Surface feet per minute

Simple Machining Calculations:

To find **RPM:** SFM x 3.82 / diameter of tool

To find **SFM:** 0.262 x diameter of tool x RPM

To find **Feed Rate:** RPM x # of flutes x chip load

**Depth of Cut:** 1 x D Use recommended chip load  
 2 x D Reduce chip load by 25%  
 3 x D Reduce chip load by 50%