



ILJIN Diamond

Tungsten Carbide Rods and Blanks



MD

for PCB drill , PCB router, Micro cutting tools

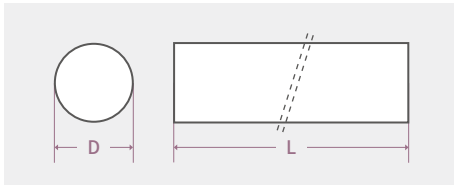
Grade	Density	Hardness		TRS (Mpa)	WC (μ m)	Co (%)	Application	Diameter (mm)
		HV	HRA					
N810X	14.55	1,980	94.0	4,300	0.3	7.5	PCB Micro Drill : < \varnothing0.1~0.35 Higher performance for halogen free PCB	\varnothing 1.15~1.52
N810A	14.47	1,960	93.9	4,400	0.3	8.2	PCB Micro Drill : \varnothing0.15~0.50	\varnothing 1.15~1.52
M710	14.61	1,930	93.8	4,100	0.5	7.5	PCB Micro Drill : > \varnothing0.50	\varnothing 1.15~1.52
HF6	14.75	2,020	94.2	3,700	0.5	6.0	PCB Router & End mill	\varnothing 3.30

EDR

for Endmill, Drill, Reamer

Grade	Density	Hardness		TRS (Mpa)	WC (μ m)	Co (%)	Application	Diameter (mm)
		HV	HRA					
HF6	14.75	2,020	94.2	3,700	0.5	6.0	End Mill, Drill, Reamer Al & Non-ferrous metal	\varnothing 3.2~25.2
HF10	14.3	1,650	92.2	3,900	0.6	10.0	End Mill, Drill, Reamer HRC < 50 Steel, Cast iron, Stainless steel, Al & Non-ferrous metal, Graphite & fiber reinforced materials	\varnothing 3.2~25.2
HF12	14.15	1,580	91.7	4,000	0.6	12.0	End Mill, Drill, Reamer HRC < 45 Steel, Cast iron, Stainless steel, Al & Non-ferrous metal	\varnothing 3.2~25.2
EF8	14.57	1,920	93.8	4,050	0.5	8.0	End Mill, Drill HRC > 50 Steel, Cast iron, Dental Bur Al & Non-ferrous metal, Graphite & fiber reinforced materials	\varnothing 3.2~25.2
EF10	14.35	1,760	92.7	4,100	0.5	10.0	End Mill, Drill, Reamer HRC < 50 Steel, Cast iron, Stainless steel, Al & Non-ferrous metal, Dental Bur Graphite & fiber reinforced materials	\varnothing 3.2~25.2
EF12	14.15	1,640	92.1	4,200	0.5	12.0	End Mill, Drill, Reamer HRC < 45 Steel, Cast iron, Stainless steel, Al & Non-ferrous metal	\varnothing 3.2 ~25.2
TH608	14.59	1,790	92.5	3,500	0.8	6.0	End Mill & Drill for CVD Diamond Coating CFRP & Grapite Non-ferrous & Non-metal materials	\varnothing 3.2~25.2
TH1008	14.4	1,590	91.8	3,800	0.8	10.0	End Mill, Drill, Reamer HRC < 50 Steel, TiAl, Inconel, Stainless steel, Al & Non-ferrous metal	\varnothing 3.2~25.2
N810A	14.47	1,960	93.9	4,400	0.3	8.2	End Mill, Drill HRC > 50 Steel, Hardened steel	\varnothing 3.2~25.2

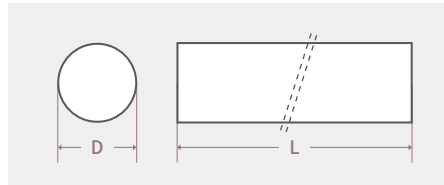
Solid rods



unit:mm			
D	Tol	L	Tol
1.15~1.50	+0.05	320 / 330	
2.20~4.20	+0.30	310 / 320	
5.20~6.20	+0.40		+10.0
7.20~10.2	+0.45		
11.20~20.20	+0.55	310 / 330	
21.20~25.20	+0.65		

Additional diameter available up to Ø40.2 upon request

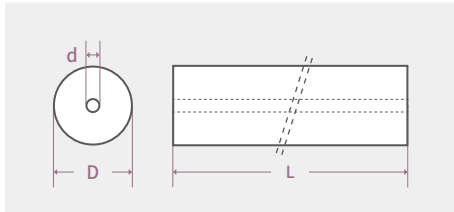
Solid blanks



unit:mm				
D	Tol	L	Tol	Remarks
3.21~3.25	±0.01			Ground
3.30	±0.04	38.5	±0.1	Unground
3.0~25.0	h6	38~150	+1.0	Ground

Central straight 1 hole type rods

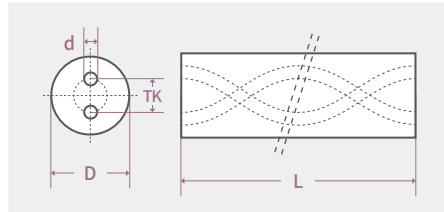
EF12



unit:mm			
D	Tol	d	Tol
3.3		0.8	
5.3	+0.3/0.0	1.0	±0.15
6.3		1.5	
8.3	+0.4/0.0	1.5	
10.3		1.5	
10.3	+0.5/0.0	2.0	
12.3		2.0	±0.20
14.3		2.0	
16.3	+0.6/0.0	2.0	

Helical 2 hole type rods (30°)

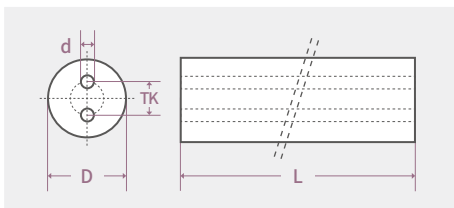
EF12



L : 330mm, unit:mm							
D	Tol	TK	Tol	d	Tol	Pitch	Tol
6.3		2.4		0.7		32.65	
7.3		3.5	±0.2	1		38.09	
8.3	+0.6	3.5		1		43.53	±1.5
9.3		4.5	±0.3	1.4	±0.15	48.97	
10.3		4.8		1.4		54.41	
11.3		4.9		1.4		59.86	
12.3	+0.9	5.85		1.4		65.30	±2
13.3		6.1	±0.4	1.75		70.74	
14.3	+1.0	6.7		1.75	±0.2	76.20	
15.3		7.3		1.75		81.62	±2.5
16.3		7.9		1.75		87.06	

Central straight 2 hole type rods

EF12



unit:mm					
D	Tol	TK	Tol	d	Tol
6.3		2.4		1.0	
8.3	+0.4/0.0	2.4	±0.2	1.0	
10.3		2.6			±0.15
12.3	+0.5/0.0	3.7		1.3	
14.3		5.0	±0.25	1.5	
16.3	+0.6/0.0	5.0		1.5	

Diameter in odd number also available

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