



PCBN/PCD Inserts

■ Machining of carbides with superhards

material machined	operation	PCD grade	speed				feed rate				DOC			
			m/min		SFM		mm/rev		in/rev		mm		in	
			min	max	min	max	min	max	min	max	min	max	min	max
tungsten carbide <19% Co														
unsintered (green)	turning	KD1425	30	120	99	396	0,1	0,4	0,004	0,016	0,2	1,0	0,008	0,039
sintered	turning	KD1425	20	80	66	264	0,1	0,25	0,004	0,010	0,1	0,5	0,004	0,020
tungsten carbide >19% Co														
unsintered (green)	turning	KB1340	50	150	165	495	0,1	0,5	0,004	0,020	0,2	1,0	0,008	0,039
sintered	turning	KB1340	30	100	99	330	0,1	0,4	0,004	0,016	0,1	0,5	0,004	0,020

**Application Notes**

- PCD tools should be used with a neutral geometry and 7° clearance.
- PCD edge preparation should be either F or E. An E edge preparation is preferred for larger DOCs, low Co content, and interrupted machining.
- PCBN tools should be used in a negative geometry with 5° to 7° negative rake.
- PCBN edge preparation should be either E or S01025.
- Coolant application is recommended and very important, especially with PCD application where failure is determined by heat generation.
- PCD can also be applied for Co concentrations higher than 19% as long as minimal heat is generated.

