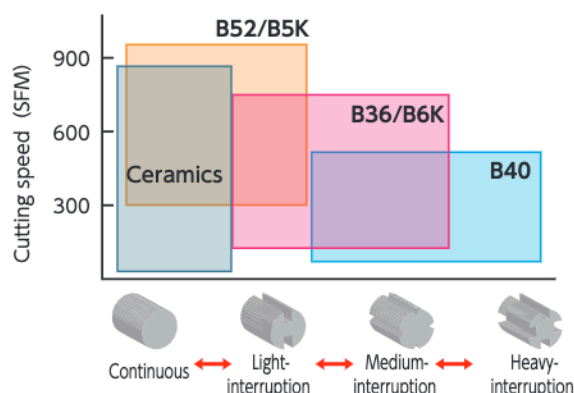


Hardened Material Applications



B40

Features

- Exceptional toughness due to special TiN binders
- Designed for severely interrupted cutting of hardened materials

【 Recommended cutting conditions 】

Grade	Application	Purpose	Cutting speed (SFM)	Feed (IPR)	Depth of cut (inch)	DRY	WET
B40	Turning (Heavy interruption)	Rough-Finish	100-500	.002-.008	.004-.040	●	○

B52 / B5K

Features

- Excellent wear resistance due to optimum CBN content with special TiC binders
- Ideal for finishing ductile cast iron and continuous cuts for finishing hardened materials

【 Recommended cutting conditions 】

Grade	Application	Purpose	Cutting speed (SFM)	Feed (IPR)	Depth of cut (inch)	DRY	WET
B52 B5K	Turning (Continuous, Light interruption)	Rough-Finish	300-1000	.004-.020	.004-.040	○	●

B36 / B6K

Features

- Excellent combination of wear resistance and toughness due to special TiCN binders
- Best for semi-interrupted cutting of hardened materials

【 Recommended cutting conditions 】

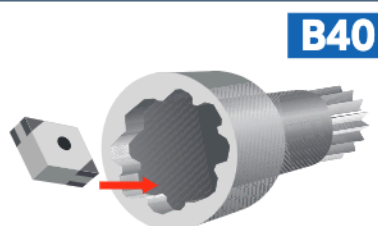
Grade	Application	Purpose	Cutting speed (SFM)	Feed (IPR)	Depth of cut (inch)	DRY	WET
B36 B6K	Turning (Light interruption, Medium interruption)	Rough-Finish	130-800	.002-.008	.004-.040	●	●

CBN Case Studies

Hardened Steel Interrupted Cut

Automotive parts interrupted boring

Material : Carbon Steel (HRC62)
 Speed : 360 SFM
 Feed : 0.006 IPR
 DOC : .006"
 Coolant : DRY



B40

NTK : B40

2,300pcs/corner

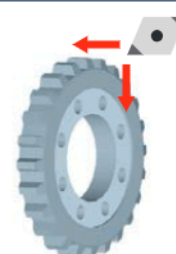
Competitor's CBN.

1,500pcs/corner

B40 achieved longer tool life without fracture at interrupted machining.

Gear parts coupling external Interrupted OD turning

Material : Carbon Steel (HRC61)
 Speed : 90 SFM
 Feed : 0.005 IPR
 DOC : .010"
 Coolant : WET



B40

NTK : B40

400pcs/corner

Competitor's CBN.

100pcs/corner

Had problems with damage with the interrupted cut, but thanks to B40 which has excellent toughness, tool life became 4 times longer !