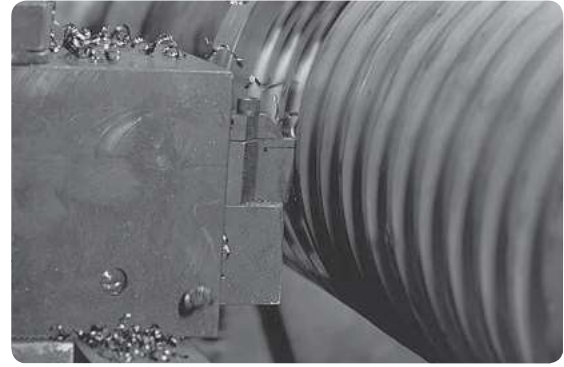


Machining Mill Rolls with NTK Ceramics and CBNs

Features

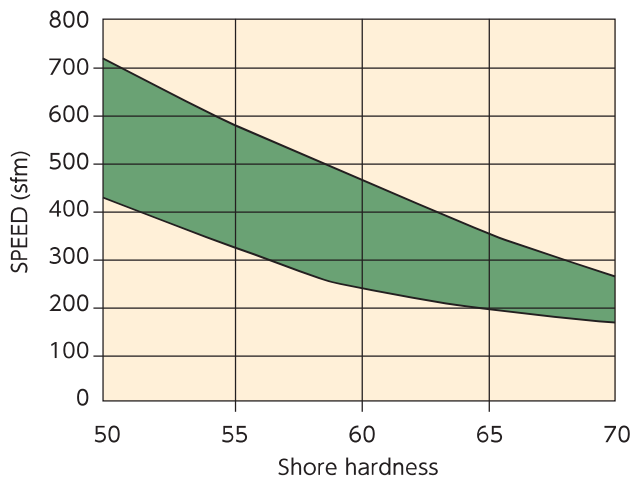
- In addition to our general purpose ceramic HC2 grade, NTK offers HC5, and HC7 for higher productivity
- WA1's wear resistance is an advantage when roughing carbide and hardened rolls
- ZC7 covers a wide range of applications such as carburized or induction hardened steels.
- ZC4 performs the best in hardened material applications from 74-97 Shore hardness



Recommended Cutting Conditions

Roll Material	Grade		Cutting speed (SFM)			Feed (IPR)	Depth of cut (inch)	DRY	WET	
			Shore Hardness Scale							
			55-65	65-72	72-					
Steel ex. D2	Ceramic	HC7	450-600	100%	80%	60%	.004-.012	.025-.075	●	
	Ceramic	HC5	450-600	100%	80%	60%	.004-.012	.025-.075	●	
	Ceramic	HC2	350-450	100%	80%	60%	.004-.012	.025-.075	●	
Chilled Cast Iron	Ceramic	HC7	450-600	100%	80%	60%	.004-.012	.025-.075	●	
	Ceramic	HC5	450-600	100%	80%	60%	.004-.012	.025-.075	●	
	Ceramic	HC2	350-450	100%	80%	60%	.004-.012	.025-.075	●	
Ductile Cast iron	Ceramic	HC7	300-600	100%	80%	60%	.004-.012	.025-.075	●	
	Ceramic	HC5	300-600	100%	80%	60%	.004-.012	.025-.075	●	
	Ceramic	HC2	250-450				.004-.012	.025-.075	●	
Carbide	CBN	B30,B99	100-200				.004-.012	.010	●	
	Whisker	WA1	150-500				.004-.012	.010-.080	●	
CPM Rolls ex. Powdered Metal	Ceramic	ZC4	400-500				.004-.012	.025-.075	●	
	Ceramic	HC5	400-500				.004-.012	.025-.075	●	
	Ceramic	HC7	400-500				.004-.012	.025-.075	●	
Continuous cuts 42-86 Shore hardness	Ceramic	ZC7	130-700	Finish			.003-.008	.005-.030	●	●
Continuous cuts 74-97 Shore hardness	Ceramic	ZC4	130-700	Finish			.003-.008	.005-.030	●	●

Recommended Speed Chart



Recommended Feed Chart

Nose radius	Depth of cut (inch)	Feed (IPR)	
		30 micro	60 micro
1/64	-.007	.002-.003	.003-.004
1/32	-.015	.003-.004	.004-.005
3/64	-.020	.004-.005	.005-.0065
1/16	-.030	.004-.0055	.006-.0075
1/4	-.080	.007-.010	.010-.014