

## HNT Carbide High Performance Material

(For Consolidation via Press and SinterHip)

		HNT Carbide	
Composition	Ti(C,N)	7.3 wt.%	wt.%
	WC	82.8 wt.%	wt.%
	Co	9.9 wt.%	wt.%
Sintered Properties	Hardness (ASTM B294)	92.0 – 92.3	HRA
	Hardness (ASTM E384)	1650 - 1700	HV <sub>30</sub>
	Density (ASTM B311)	12.70 - 12.80	g/cm <sup>3</sup>
	Palmqvist Toughness (ISO 28079)	11.0 – 11.5	MPaVm

**Grade Attributes:** The uniformly distributed Ti(C,N) particles provide increased thermal conductivity when compared to conventional WC-Co grades while maintaining TCHP's unmatched hardness and toughness at elevated operating temperatures. The patented TCHP coating process eliminates the standard core-rim cermet structure by completely encapsulating each Ti(C,N) particle in order to protect them during consolidation.

