

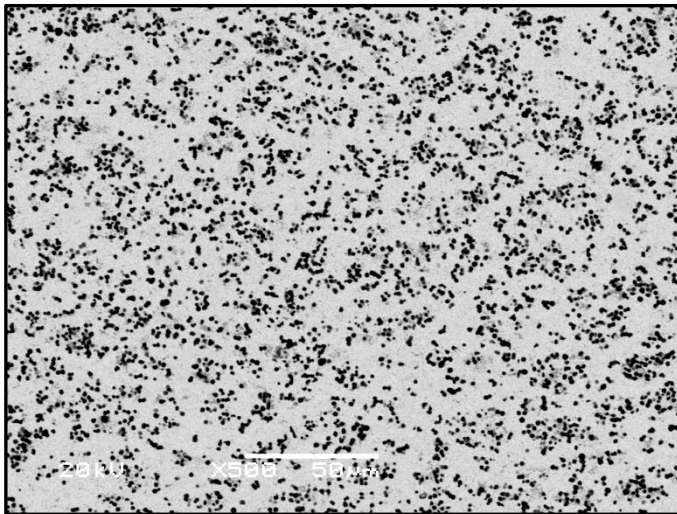
Grade Specifications

Grade: HNT CarbideAL

Composition: Aluminum Oxide 7.3wt%
 Tungsten Carbide: 82.8wt%
 Cobalt: 9.9wt%

Physical Properties:

Hardness, Rockwell, HRA (ASTM B294) 92.5-92.8
 Vickers, HV30 (ASTM E384) 1700-1750
 Fracture Toughness, MPa√m (ISO 28079) 12.5-13.5
 Density, g/cm³ (ASTM B311) 12.4-12.5



Performance Characteristics

	Low	Mod	High
Wear
Impact
Galling
Corrosion

Grade Attributes: The uniform microstructure of this material is created through encapsulation of fine Al₂O₃ particles into a WC shell, and subsequent Co shell. Processing this powder into sintered parts or thermally applied coatings based on these chemically inert core particles create a thermally insulating material which retains exceptional hardness and toughness at elevated working temperatures.

- Typical Applications:**
- Cutting/Milling Tools
 - Industrial Mining/Tunneling
 - Sealing Surfaces
 - Thermal Spray

