

**GENERAL**CARBIDE®

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## **GRADE DATA SHEET**

## GC-613CT



Microstructure

Composition						
Tungsten Carbide (6.0 micron)	83.0%					
Cobalt	13.0%					
Tantalum Carbide	3.0%					
Other	1.0%					

Physical Properties				
Hardness, HRA (ASTM B294)	87.9 - 88.9			
Density, g/cc (ASTM B311)	14.00 - 14.12			
Average Transverse Rupture Strength, psi (ASTM B406)	465,000			
Typical Porosity (ASTM B276)	A02-B00-C00			

PERFORMANCE CHARACTERISTICS							
	LESS	LESS			MORE		
Wear Resistance							
Impact Resistance							
Galling Resistance							
<b>Corrosion Resistance</b>							

To ensure the highest metallurgical quality, General Carbide processes all grades in sinter-HIP furnaces.

## **Grade Attributes**

The coarse grain structure coupled with medium binder content provides this grade with good wear resistance and the capability to withstand moderate impact loads. A tantalum carbide addition adds a measure of lubricity and resistance to galling in all wear areas. The presence of a corrosion-resistant additive provides adequate resistance to environmental corrosive attack (leaching) of the binder metal.

## **Typical Applications**

- > Powder Metal Dies (Wire EDM)
- > High Impact Punches
- > WEDM Blocks



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