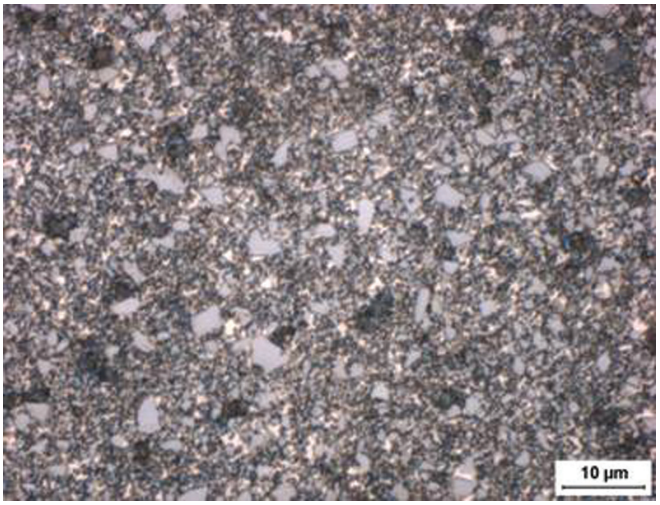
GENERALCARBIDE®
SHAPING YOUR SUCCESS

GRADE DATA SHEET

GC-813CT



Microstructure

Composition	
Tungsten Carbide (Mixed)	86.5%
Cobalt	10.5%
Tantalum Carbide	2.0%
Other	1.0%

Physical Properties	
Hardness, HRA (ASTM B294)	90.0 - 91.5
Density, g/cc (ASTM B311)	14.17 - 14.37
Average Transverse Rupture Strength, psi (ASTM B406)	460,000
Typical Porosity (ASTM B276)	A02-B00-C00

PERFORMANCE CHARACTERISTICS

	LESS ■ ■ ■ □ □ MORE
Wear Resistance	■ ■ ■ □ □
Impact Resistance	■ ■ □ □ □
Galling Resistance	■ ■ ■ ■ □
Corrosion Resistance	■ ■ ■ ■ □

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

Grade Attributes

The mixed carbide matrix coupled with the medium binder content provides an excellent wear resistant grade with resistance to impact. The tantalum carbide addition efficiently withstands galling that often occurs during stamping of cold rolled steels or stainless steels and provides thermal edge deformation resistance. The corrosion-resistant additive exhibits high resistance to binder leaching during the EDM process as well as preventing latent, residual corrosion that may occur on the working surfaces of tools being stored for future use.

Typical Applications

> All Lamination Tooling
> Large EDM Blocks
> Stamping Punches
> Dies
> Powder Metal Tooling

Please visit our website for the latest grade specification information.

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