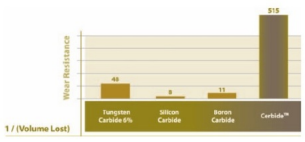
OUR Material

Our patented Cerbide (TM) material is a binderless polycrystalline Tungsten Carbide which offers superior wear resistance, corrosion resistance and improved diamond coating adhesion.

Material Properties			
	Cerbide™	6% Cobalt Carbide	6% Nickel Carbide
Hardness			
Vickers (Hv)	2400	~1560	~1540
Rockwell (a)	95.5	~92.3	~91.3
TRS (MPa)	1655	1440-3440	1720-2200
Density (g/cm³)	>15.45	~14.90	~14.95

ABRASION

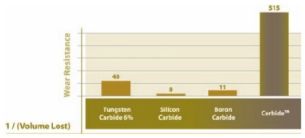
Cerbide™ outperforms other carbides in abrasive environments.



Dry Abrasion Resistance

ASTM G-65 Test

After 30 minutes, a comparison of the volume of material worn away when typical wear materials were blasted with a silicon carbide abrasive at their contact point with a spinning rubber wheel, showed ***Cerbide™ lasting 3 times longer*** than tungsten carbide.



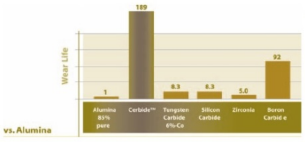
Wet Abrasion Resistance

ASTM B-611 Test

To measure wet abrasion, typical wear materials were water blasted with a silicon carbide abrasive at their contact point with a spinning rubber wheel. After 30 minutes, the volume of material worn away was measured, showing ***Cerbide™ lasting 11 times longer*** than tungsten carbide.

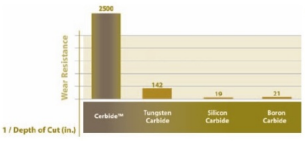
EROSION

Wear resistance testing dramatically highlights the superior quality of Cerbide™ compared to other available wear materials.



Dry Erosion Resistance

Erosion Rate was measured by blasting each base material with 100 grit aluminum oxide. Wear Life is represented as the inverse of the amount of the tested material that wore away when blasted, as compared to an Alumina nozzle under the same conditions - showing ***Cerbide™ lasts 21 times longer*** than silicon carbide and has twice the life of boron carbide.



Wet Erosion Resistance

When placed under a garnet-enhanced 30,000psi water jet for 1 minute, measurement of the depth of cut showed ***Cerbide™ with 17 times better wear*** than 6% cobalt-tungsten carbide.

DIAMOND COATINGS LAST 250% LONGER ON CERBIDE

ABRASIVE WEAR: CARBON CUTTING TEST

Samples of popular diamond coatings applied to tungsten carbide were tested in a 30" diameter carbon disk facing operation. The number of carbon parts cut before the surface became unacceptable showed diamond coated Cerbide lasting 250% longer than diamond coating on traditional carbide.