

Cerbide™ Material Properties

Cerbide™ is produced from a patented process combining the properties of ceramics and cemented tungsten carbide, enabling it to perform at high levels of abrasion and erosion resistance. The result is a cost-efficient, high-performance product that wears significantly longer in both wet and dry low-impact applications.

Abrasion Resistance

Dry Wheel [ASTM G-65]
(1/cm³) 670

Wet Wheel [ASTM B-611]
(1/cm³) 515

Hardness

Vickers (Hv) 2400
Rockwell (a) 95.5

TRS (ksi) 240

Density (g/cc) >15.45

Young's Modulus (GPa) 620

Fracture Toughness (MPam) 5.9

Thermal Conductivity
(W/mK) 120

Thermal Expansion
(x 10⁻⁶ / C) 4.5

Electrical Resistivity
(x10⁻⁶ Ohm X cm) 17

Specific Heat (cal/molK) 8.46

Working Temperature

Uncoated (C) 400
Coated (C) 1100

Corrosion rate - Cerbide is 8 times better than Nickel binder Tungsten Carbide after 144 hours in Nitric, Acetic, or Sulfuric Acids.

- Cerbide is non-magnetic
- Cerbide can be EDM cut and diamond ground
- Cerbide can be brazed (we suggest Braze 495 used with Handy Flux Type B-1 from Lucas-Milhaupt)

CERBIDE.

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