

Cemented carbide grade: V20

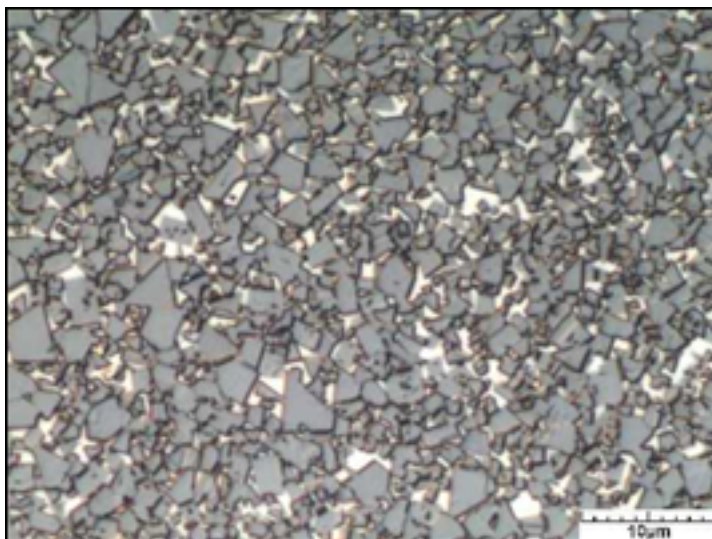
Physical properties:

| | | |
|--------------------------------|-------------|----------------------|
| Density: | 14,65 ± 0,1 | g/cm ³ |
| Hardness: | 1390 ± 30 | HV30 |
| Transverse rupture strength: | 514,89 | 10 ³ psi |
| Compression strength: | 5150 | MPa |
| Modulus of elasticity: | 600 | GPa |
| Modulus of rigidity: | 245 | GPa |
| Poisson's ratio: | 0,22 | |
| Thermal conductivity: | 113,9 | W/(m*K) |
| Thermal expansion coefficient: | 5,8 | 10 ⁻⁶ /K |
| Fracture toughness: | 14,1 | MPa*m ^{1/2} |

Yield strength = tensile strength

For WC-Co cemented carbide grades applies: The tensile strength is one third of the compression strength.

Microstructure:



| | |
|-------------------|-----------|
| WC grain size: | 2,5 µm |
| Tungsten carbide: | 91,50 wt% |
| Other carbides: | |
| Binder: | 8,50 wt% |