

## SPECIFICATIONS

- ▶ Chemical formula:
- ▶ Chemical name: Cermet
- ▶ Appearance: Dense sintered cermet
- ▶ Main characteristics: High Mechanical Strength, Excellent Wear Resistance, High Heat Shock Resistance, Electrical Conductivity
- ▶ Main applications: Cutting Tools Tips, Wear Resistant Parts, Electrical Conductivity
- ▶ Colour: Silver

## MECHANICAL & PHYSICAL CHARACTERISTICS (TYP.)

Density		[g/cm <sup>3</sup> ]	JIS R 1634	6.0
Water absorption		[%]	JIS C 2141	0
Vickers hardness HV9.807N		[GPa]	JIS R 1610	16.2
Flexural strength 3 P.B.		[MPa]	JIS R 1601	1,470
Compressive strength		[MPa]	JIS R 1608	3,430
Young's modulus of elasticity		[GPa]	JIS R 1602	440
Poisson's ratio		[-]	JIS R 1602	0.21
Fracture toughness (SEPB)		[MPa*m <sup>0.5</sup> ]	JIS R 1607	-
Coefficient of linear thermal expansion	40 - 400 °C	[*10 <sup>-6</sup> /K]	JIS R 1618	7.4
	40 - 800 °C			8.3
Thermal conductivity		[W/(m*K)]	JIS R 1611	17
Specific heat capacity		[J/(g*K)]	JIS R 1611	-
Thermal shock temperature difference		[°C]	JIS R 1648	310
Dielectric strength		[kV/mm]	JIS C 2141	-
Volume resistivity	20 °C	[Ω*cm]	JIS C 2141	10 <sup>-4</sup>
	300 °C			-
	500 °C			-
Dielectric constant		-	JIS C 2141	-
Dielectric loss angle		[*10 <sup>-4</sup> ]	JIS C 2141	-
Loss factor		[*10 <sup>-4</sup> ]	JIS C 2141	-

The values are typical material properties and may vary according to products configuration and manufacturing process. For more details, please feel free to contact us.