ZO701N

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SPECIFICATIONS

- Chemical formula: ZrO_2
- Chemical name: Zirconia
- Apperance: Dense sintered zirconia
- Main characteristics: High mechanical strength, excellent wear resistance, good surface finish, high fracture toughness
- Main applications: Pump parts, dies, knives, cutting blades, spikes, club faces, scissors
- Colour: Ash black

MECHANICAL & PHYSICAL CHARACTERISTICS (TYP.)

Density		[g/cm³]	JIS R 1634	6.0
Water absorption		[%]	JIS C 2141	0
Vickers hardness HV9.807N		[GPa]	JIS R 1610	12.7
Flexural strength 3 P.B.		[MPa]	JIS R 1601	1,470
Compressive strength		[MPa]	JIS R 1608	-
Young's modulus of elasticity		[GPa]	JIS R 1602	220
Poisson's ratio		[-]	JIS R 1602	0.31
Fracture toughness (SEPB)		[MPa*m$^{0.5}$]	JIS R 1607	4 ~ 5
Coefficient of linear thermal expansion	**40 - 400 °C** **40 - 800 °C**	[*10^{-6}/K]	JIS R 1618	10.8 11.3
Thermal conductivity		[W/(m*K)]	JIS R 1611	3
Specific heat capacity		[J/(g*K)]	JIS R 1611	0.46
Thermal shock temperature difference		[°C]	JIS R 1648	350
Dielectric strength		[kV/mm]	JIS C 2141	-
Volume resistivity	**20 °C** **300 °C** **500 °C**	[Ω*cm]	JIS C 2141	- - -
Dielectric constant		-	JIS C 2141	-
Dielectric loss angle		[*10^{-4}]	JIS C 2141	-
Loss factor		[*10^{-4}]	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.

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