AO484O (≥ 92%)

2023.04.03

SPECIFICATIONS

- Chemical formula: Al_2O_3
- Chemical name: Aluminium oxide
- Apperance: Dense sintered aluminum oxide
- Main characteristics: High mechanical strength, high temperature resistance, high frequency insulation, high chemical resistance, wear resistant
- Main applications: Wire-drawing parts, capstans, mechanical seal rings
- Colour: White

MECHANICAL & PHYSICAL CHARACTERISTICS (TYP.)

Density		[g/cm³]	JIS R 1634	3.6
Water absorption		[%]	JIS C 2141	0
Vickers hardness HV9.807N		[GPa]	JIS R 1610	12.3
Flexural strength 3 P.B.		[MPa]	JIS R 1601	370
Compressive strength		[MPa]	JIS R 1608	-
Young's modulus of elasticity		[GPa]	JIS R 1602	280
Poisson's ratio		[-]	JIS R 1602	0.23
Fracture toughness (SEPB)		[MPa*m$^{0.5}$]	JIS R 1607	-
Coefficient of linear thermal expansion	**40 - 400 °C** **40 - 800 °C**	[*10^{-6}/K]	JIS R 1618	6.8 7.7
Thermal conductivity		[W/(m*K)]	JIS R 1611	17
Specific heat capacity		[J/(g*K)]	JIS R 1611	0.78
Thermal shock temperature difference		[°C]	JIS R 1648	200
Dielectric strength		[kV/mm]	JIS C 2141	14
Volume resistivity	**20 °C** **300 °C** **500 °C**	[Ω*cm]	JIS C 2141	>10^{14} 10^{10} 10^{8}
Dielectric constant		-	JIS C 2141	8.9
Dielectric loss angle		[*10^{-4}]	JIS C 2141	9
Loss factor		[*10^{-4}]	JIS C 2141	80

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.

KYOCERA Fineceramics Europe GmbH
E-Mail: info@kyocera-fineceramics.de · www.kyocera-fineceramics.de