

Main properties

NO.	Property	Unit	Alumina
1	Al ₂ O ₃	%	>99.3
2	SiO ₂	%	—
3	Density	g/cm ³	3.88
4	Water absorption	%	0.01
5	Compressive strength	MPa	2300
6	20°C leakage rates	Torr•L/sec	$>10^{-11}=1.33322 \times 10^{-12} \text{Pa} \cdot \text{m}^3/\text{sec}$
7	Twisting in high temperature	mm	0.2 allowed in 1600°C
8	Bonding in high temperature		not bonded in 1600°C
9	20—1000°C coefficient of thermal expansion	mm. 10 ⁻⁶ / °C. m	8.2
10	Thermal conductivity	W/m. k	25
11	Electric insulation strength	KV/mm	20
12	20°C direct current insulation resistance	Ohm/cm	10 ¹⁴
13	High-temperature insulation resistance	1000°C MΩ	≥0.08
		1300°C MΩ	≥0.02
14	Thermal shock resistance		4 times not cracked in 1550°C
15	Maximum working temperature	°C	1800
16	Hardness	Mohs	9
17	Flexural strength	Mpa	350