Technical Data of 99.5% Alumina

Al_2O_3	99.58%
Vickers Hardness	1600
Bending Strength (Mpa)	415
Thermal expansion (10^{-6}/℃)	7.50
Density(g/cm^3)	3.90
Isolation (kv/mm)	10
Ω.cm (300℃)	>10^{12}
Cal/g. ℃	0.28
Water absorption	0.001%
Modulus of elasticity (N/mm^2)	10^4-10^5
Sintering Temperature	1650°

Technical Data of 95% Alumina

Al_2O_3	**94.8%**
SiO_2	**1.92%**
CaO	**2.13%**
Water absorption	**0.003%**
Density	**3.65g/cm ^{3}**
Vickers Hardness	**1300**
Ultimate tensile strength σ γ -[N/mm^2]	**182**
Ultimate bending strength σ B-[N/mm^2]	**250~408**
Ultimate compressive strength σ C- [N/mm^2]	**1960**
Modulus of elasticity E-[N/mm^2]	**10^3-10^5**
Poisson's ratio v-[mm/mm]	**0.2-0.3**
Thermal expansion coefficient α - **[10^{-6}/℃]**	**7.2**
kV/mm	**10**
Ω **.cm** **20**℃ **300**℃	 **>10^{14}** **>10^{12}**
Te value, ℃	**930**
ε **(1MHZ)**	**8.6**
tg δ **X x 10^{-4} (MHZ)**	**3**
ε . tg δ , x**10^{-4}**	**26**