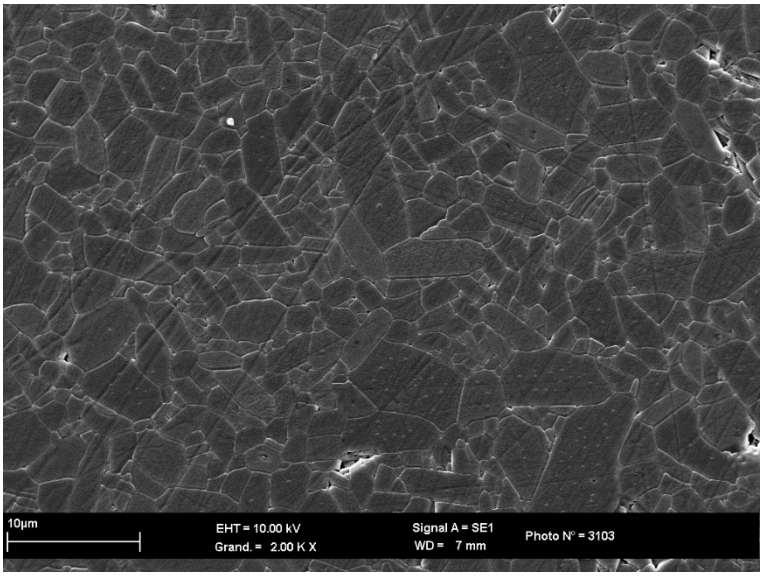
ceramaret Switzerland

Alumina 99.7%

CHEMICAL COMPOSITION	Al_2O_3	99.7%wt	* by difference
	MgO	0.05%wt	
	Na_2O	<0.1%wt	
	SiO_2	<0.1%wt	
	Fe_2O_3	<0.1%wt	
	CaO	<0.1%wt	
PHYSICAL PROPERTIES	Mean grain size	4±2 µm	
	Sintered density	3.85 g/cm^3	
	Bending strength at 20° C	400 MPa	
	Hardness $H_{v0.5}$	1700 Hv	
THERMAL PROPERTIES	Thermal conductivity at 20°C	25 W.m^{-1}.k^{-1}	
ELECTRICAL PROPERTIES	Dielectric constant at 25°C-1MHz	9 (1MHz)	
	tan δ	5.10^{-3} (9GHz)	
	DC Volume resistivity at 25°C	1.10^{14} Ω.cm	
	Dielectric strength at 3mm	18 kV/mm^{-1}	

MICROSTRUCTURE



KEY FEATURES

Excellent mechanical, corrosion and electrical properties; good thermal conductivity

TYPICAL APPLICATIONS

High purity alumina is usually well suited for applications such as pistons and cylinders for precision dosing devices, feedthrough for medical devices, precision rotor valves components, pump seals & plungers, electrical insulators & inductors, wear nozzles, electrical connector housings, injector tubes & gas nozzles, wear resistant components.