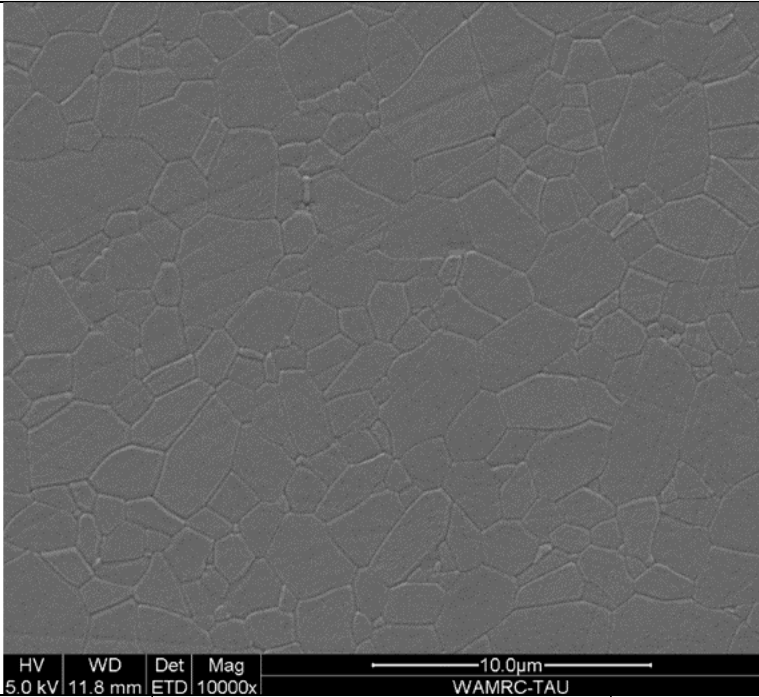


## C700 – Alumina Build Dispersion

Physical Properties		Standard
Density	> 99.5% > 3.93 g/cm <sup>3</sup>	ISO 18754
Purity	> 99.99%	
Mechanical Properties		
Hardness	> 1600 HV	ASTM C1327
Shrinkage	Linear 14.5±1% per axis (isotropic)	
Young's Modulus of Elasticity	387 GPa	ASTM E494-20
Fracture Toughness	3.4 MPa·m <sup>1/2</sup>	
Poisson's Ratio	0.23	ASTM C818
Microstructure as Sintered		
		
Thermal Properties		Standard
Thermal Conductivity	32 J/(sec x m x K) @30°C	ASTM D5470
Coefficient of Linear Thermal Expansion	7.1 (40-400°C) ppm/°C E-6 8.0 (40-800°C) ppm/°C E-6	ASTM C372
Specific Heat Capacity	0.78 J/(Kg·K)	
Thermal Shock Resistance (Temperature Difference)	150 °C	
Electrical Properties		
Volume Resistivity	20°C - 1.0E+15 Ω·cm 300°C - 2.5E+13 Ω·cm 500°C - 5.8E+10 Ω·cm	ASTM D257
Dielectric Strength	17 kV/mm	ASTM D149
Dielectric Constant (1 MHz)	9.9	ASTM D150
Dissipation Factor	< 0.0001 (1kHz)	ASTM D150



Others	
MSDS Availability	EU, US, RU
Cartridge Weight	2.4 Kg
Storage Conditions	15–35°C, < 50% relative humidity, non-condensing
Suitable Protection	As per instructions on the cartridge
Risk Phrases	P264 Wash thoroughly after handling. P280 Wear protective gloves/protective clothing/eye protection/face protection. H319 Causes serious eye irritation
First Aid	As per instructions on the cartridge
Shelf Life	1 year at room temperature

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