

C700 - ALUMINA BUILD DISPERSION

Physical properties		Standard
Density	> 99.5% > 3.93 g/cm3	ISO 18754
Purity	99.99%	
Mechanical properties		
Hardness	>1600 HV	ASTM C1327
Shrinkage	Linear 15.1% per axis (isotropic)	
Young's Modulus of Elasticity	387 GPa	ASTM E494 – 20
Fracture Toughness	3.4 MPa · $m^{1/2}$	
Poisson's Ratio	0.23	ASTM C818
Thermal properties		
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 (1MHz)	ASTM D150
Others		·
MSDS availability	EU, US, RU	
Certifications	ISO 9001, ISO 13485	
Cartridge Weight	2.4Kg	
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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