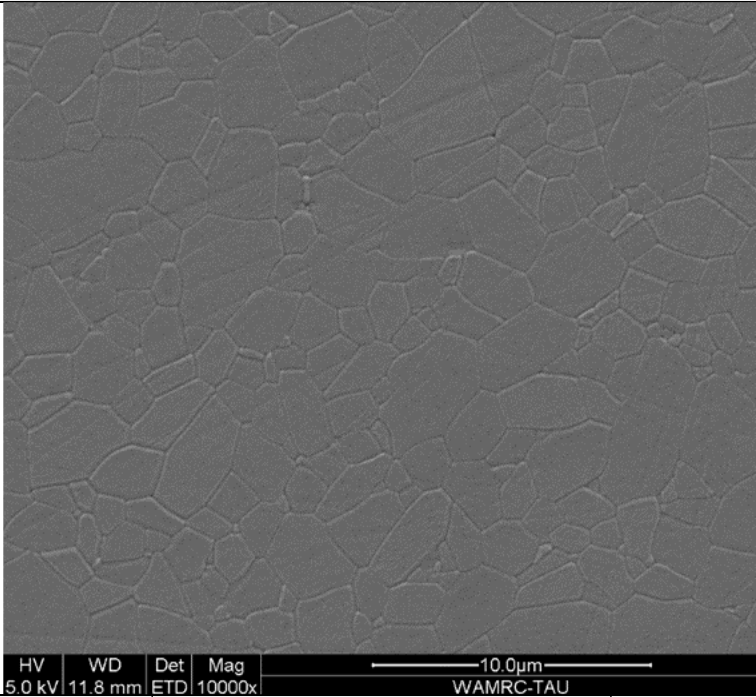


## C700 – Alumina Build Dispersion

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														
														
<table border="1"> <tr> <td>HV</td> <td>WD</td> <td>Det</td> <td>Mag</td> <td colspan="2">10.0µm</td> </tr> <tr> <td>5.0 kV</td> <td>11.8 mm</td> <td>ETD</td> <td>10000x</td> <td colspan="2">WAMRC-TAU</td> </tr> </table>			HV	WD	Det	Mag	10.0µm		5.0 kV	11.8 mm	ETD	10000x	WAMRC-TAU	
HV	WD	Det	Mag	10.0µm										
5.0 kV	11.8 mm	ETD	10000x	WAMRC-TAU										
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
Certifications	ISO 9001, ISO 13485
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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