

A997/LF Alumina	A999 Alumina	A95 Alumina	ZTA Mixed oxide	ZR02 Zirconium oxide	MG-PSZ Zirconium oxide	ZR02J Zirconium oxide	SI3N4 Silicon nitride	C221 Steatite
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PRODUCT DESCRIPTION

A997/LF Alumina

Material	$\text{Al}_2\text{O}_3 > 99.7\%$
Colour	white, ivory
Density	3,9 g/cm ³
Flexural Strength	390 MPa
Compressive Strength	3.900 MPa
Modulus of Elasticity (young)	390 GPa
Impact Resistance	5,2 MPa m ^{1/2}
Weibull Modulus	12 m
Vickers Hardness	2.000 HV 0.5
Thermal Exoansion Coefficient	5,5 - 8,4 10 ⁻⁶ K ⁻¹
Thermal Conductivity	28 W/mK
Thermal Shock Resistance	280 ΔT °C
Maximum Use Temperature	1.700 °C



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PRODUCT DESCRIPTION

A999 Alumina

Material	$\text{Al}_2\text{O}_3 > 99.9\%$
Colour	white
Density	3,96 g/cm ³
Flexural Strength	390 MPa
Compressive Strength	3.900 MPa
Modulus of Elasticity (young)	390 GPa
Impact Resistance	5,2 MPa m ^{1/2}
Weibull Modulus	12 m
Vickers Hardness	2.000 HV 0.5
Thermal Exoansion Coefficient	5,5 - 8,4 10 ⁻⁶ K ⁻¹
Thermal Conductivity	28 W/mK
Thermal Shock Resistance	280 ΔT °C
Maximum Use Temperature	1.700 °C



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PRODUCT DESCRIPTION

A95 Alumina

Material	$\text{Al}_2\text{O}_3 > 95-97\%$
Colour	ivory, white
Density	3,7 g/cm ³
Flexural Strength	300 MPa
Compressive Strength	3.400 MPa
Modulus of Elasticity (young)	350 GPa
Impact Resistance	4 MPa m ^{1/2}
Weibull Modulus	10 m
Vickers Hardness	1.800 HV 0.5
Thermal Exoansion Coefficient	5,0 - 8,3 10 ⁻⁶ K ⁻¹
Thermal Conductivity	24 W/mK
Thermal Shock Resistance	250 ΔT °C
Maximum Use Temperature	1.600 °C



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PRODUCT DESCRIPTION

ZTA Mixed oxide

Material	$Al_2O_3 + ZrO_2$
Colour	white
Density	4,1 g/cm ³
Flexural Strength	450 MPa
Compressive Strength	3.600 MPa
Modulus of Elasticity (young)	350 GPa
Impact Resistance	7,5 MPa m ^{1/2}
Weibull Modulus	15 m
Vickers Hardness	1.600 HV 0.5
Thermal Exoansion Coefficient	6,0 - 8,6 10 ⁻⁶ K ⁻¹
Thermal Conductivity	18 W/mK
Thermal Shock Resistance	320 ΔT °C
Maximum Use Temperature	1.000 °C



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PRODUCT DESCRIPTION

ZR02 Zirconium oxide

Material	ZrO ₂ + Y-PSZ
Colour	white
Density	6 g/cm ³
Flexural Strength	800 MPa
Compressive Strength	3.000 MPa
Modulus of Elasticity (young)	205 GPa
Impact Resistance	8 MPa m ^{1/2}
Weibull Modulus	15 m
Vickers Hardness	1.150 HV 0.5
Thermal Exoansion Coefficient	10 10 ⁻⁶ K ⁻¹
Thermal Conductivity	< 2 W/mK
Thermal Shock Resistance	270 ΔT °C
Maximum Use Temperature	1.000 °C



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PRODUCT DESCRIPTION

MG-PSZ Zirconium oxide

Material	ZrO ₂ + Mg-PSZ
Colour	yellow
Density	5,7 g/cm ³
Flexural Strength	700 MPa
Compressive Strength	- MPa
Modulus of Elasticity (young)	200 GPa
Impact Resistance	7 MPa m ^{1/2}
Weibull Modulus	18 m
Vickers Hardness	1.200 HV 0.5
Thermal Exoansion Coefficient	10 10 ⁻⁶ K ⁻¹
Thermal Conductivity	< 2 W/mK
Thermal Shock Resistance	250 ΔT °C
Maximum Use Temperature	1.000 °C

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PRODUCT DESCRIPTION

ZR02J Zirconium oxide

Material	ZrO ₂ + Y-PSZ
Colour	white
Density	6,04 g/cm ³
Flexural Strength	1.000 MPa
Compressive Strength	3.000 MPa
Modulus of Elasticity (young)	205 GPa
Impact Resistance	10 MPa m ^{1/2}
Weibull Modulus	18 m
Vickers Hardness	1.300 HV 0.5
Thermal Exoansion Coefficient	10 10 ⁻⁶ K ⁻¹
Thermal Conductivity	< 2 W/mK
Thermal Shock Resistance	270 ΔT °C
Maximum Use Temperature	1.000 °C



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PRODUCT DESCRIPTION

SI3N4 Silicon nitride

Material	Si ₃ N ₄
Colour	gray, black
Density	3,2 g/cm ³
Flexural Strength	750 MPa
Compressive Strength	2.500 MPa
Modulus of Elasticity (young)	320 GPa
Impact Resistance	6,7 MPa m ^{1/2}
Weibull Modulus	158 m
Vickers Hardness	1.650 HV 0.5
Thermal Exoansion Coefficient	3,4 10 ⁻⁶ K ⁻¹
Thermal Conductivity	22 W/mK
Thermal Shock Resistance	750 ΔT °C
Maximum Use Temperature	1.300 °C



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PRODUCT DESCRIPTION

C221 Steatite

Material	Steatite
Colour	white
Density	2,7 g/cm ³
Flexural Strength	140 MPa
Compressive Strength	900 MPa
Modulus of Elasticity (young)	110 GPa
Impact Resistance	- MPa m ^{1/2}
Weibull Modulus	- m
Vickers Hardness	- HV 0.5
Thermal Exoansion Coefficient	7,0-9,0 10 ⁻⁶ K ⁻¹
Thermal Conductivity	2,0 - 3,0 W/mK
Thermal Shock Resistance	100 ΔT °C
Maximum Use Temperature	1.200 °C



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