

Yttria-stabilized Zirconia Powder

Formula: ZrO_2/Y_2O_3

Mean Particle Size: 0.1-2 μ m

Maximum Particle Size: 10 μ m

Weight: 100g

Stabilised With: 5.4% Yttria

CAS Number: 114168-16-0

UOM Code: 063-243-97

SKU: 1000008851-group

Product Code: ZR61-PD-000110

Material Properties for Ceramics

Thermal Properties

Element	Value
Melting point(C)	2700
Upper continuous use temperature(C)	2200
Specific heat(J K ⁻¹ kg ⁻¹)	400-500@25°C
Thermal conductivity(W m ⁻¹ K ⁻¹)	2.5@20°C
Coefficient of thermal expansion(x10 ⁻⁶ K ⁻¹)	10@20-1000°C

Physical Properties

Element	Value
Density(gcm ⁻³)	5.9

Mechanical Properties

Element	Value
Tensile modulus(GPa)	200
Hardness - Vickers(kgf mm ⁻²)	1250
Tensile strength(MPa)	300-600

Pultrusions

Element	Value
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Compressive strength(MPa) 2000