innovative industry solutions

rojan advanced ceramics

Magnesia Materials Data Sheet

Property	Units	99.4% Magnesia
Description		
Nominal Composition		$MgO + Y_2O_3$ (99.4)
Microstructure		
Bulk Density	[g/cm^3]	≥3.45
Bulk Density	[TD]	> 96%
Water Absorption	[%]	0
Apparent Porosity	[vol%]	< 1
Colour		Beige
Mechanical Properties		
Compressive Strength	[MPa]	825
Flexural (Bending) Strength	[MPa]	240
Young's Modulus E	[GPa]	-
Fracture Toughness	[$MPa.m^{1/2}$]	-
Vickers Hardness	[kg/mm^2]	800
Poisson's Ratio		-
Thermal Properties		
Max Working Temperature	[^oC]	>2000
Thermal Conductivity @ RT	[W/mK]	48
Thermal Expansion Coefficient	[$x10^{-6}/K$]	13.9
Thermal Shock Resistance (ΔT_C)	[C]	-
Electrical Properties		
Specific Resistance (@20°C)	[Ωcm]	-

Note: The above data represent typical values of Rojan Magnesia.

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