McDANEL
Advanced Material Technologies

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MV-HR1 MULLITE

Composition

TYPE C610 TO IEC 60672

Alumina	Al_2O_3	59.0%
Silica	SiO_2	36.0%
Iron Oxide	Fe_2O_3	0.6%
Potassium Oxide	K_2O	3.0%
Titania	TiO_2	0.7%
Sodium Oxide	Na_2O	0.3%
Calcia	CaO	0.2%
Magnesia	MgO	0.2%

Physical Properties

Bulk Density	Open Porosity	Flexural Strength 20°C	Flexural Strength 1000°C	Compressive Strength 20°C
2.6 g/cm^3	0%	140 Mpa	190 Mpa	-
162 lbs/ft^3	0%	20 ksi	28 ksi	-

Thermal Properties

Conductivity 20°C	Conductivity 800°C	Expansion Coefficient 20-1000°C	Max Use Temperature (no load)
2.6 W/m°K	2.1 W/m°K	5.9x 10^{-6}/C°	1500°C
18 BTU.in/ft^2.hr°F	15 BTU.in/ft^2.hr°F	3.3 x 10^{-6}/F°	2732°F

Electrical Properties

Volume Resistivity 20°C	Volume Resistivity 600°C
10^{13} Ω.cm	-

These values are typical but significant differences may occur depending on geometry, mass, specific processing methods used, and the surface finish of final components.