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## **COMPOSITION 2004**

## **DESCRIPTION AND TYPICAL PROPERTIES**

Description Coarse grain pressed body 72% zirconia, 27% silica

Application Containment vessels for induction melting of precious metals and some

superalloys.

Chemistry	<u>Oxide</u>	<u>Percent</u>
	$SiO_2$	27.0
	CaO	0.3
	MgO	0.2
	$Fe_2O_3$	0.2
	$Al_2O_3$	0.5
	$TiO_2$	0.2
	$ZrO_2$	Balance

Density 3.6 g/cc (224.8 Lbs./Ft<sup>3</sup>)

Porosity 16%

Monoclinic Not Applicable

MOR at R.T. 4300 psi

Thermal Expansion

CTE R.T. to 600°C	$5 \times 10^{-6}$	in/in/°C
CTE R.T. to 1000°C	$5 \times 10^{-6}$	$in/in/^{o}C$
CTE R.T. to 1300°C	$3 \times 10^{-6}$	in/in/°C

Thermal Conductivity at 800°C-Calc. 2.0 W/m-°K

NOTICE: Recommendations, property values, and application information we publish are based on various sources including measurements by us and others, and estimates of experience. We intend this to be a reliable guide, but we do not guarantee the applicability, completeness, or accuracy of the information. Users should make their own test to determine the suitability of any product for their applications