DATASHEET: RARE EARTH MATERIALS					
PROPERTIES	**Units**	**EREY99**	**EREH99**	**EREH97Y**	**EREC99**
		Yttrium Oxide	**Hafnium Oxide**	**Hafnium, Stabilised**	**Cerium Oxide**
Physical Properties					
% Primary Material	% wt	99.9 (Y_2O_3)	99.9 (HfO2)	97.5 (HfO2)	99.9 (CeO_2)
% Secondary Material	% wt	-	-	2.5 (CaO or Y_2O_3)	-
Density	g/cm^3	4.95	9	9.5	7.2
Open Porosity	%	<2	<1	<1	<1
Thermal Properties					
Max Operating Temp	^oC	2000	2812	1700	1900
Max Operating Temp	^oF	3632	5093	3092	3452
Thermal Conductivity (20 - 100oC)	W/m^oK	0.3	-	-	-
Coefficient Thermal Expansion	$x10^-6\ K^{-1}$	8.5-13.7	-	-	-
Mechanical Properties					
Flexural Strength	psi	-	-	-	-
Hardness- Mohs	Mohs	-	-	-	-
Tensile Strength	psi	-	-	-	-
Electrical Properties					
Volume Resistivity at 20^oC	ohm - cm	-	-	-	-
Volume Resistivity at 600^oC	ohm - cm	-	-	-	-
Dielectric Constant	25^oC & 1 mhz	-	-	-	-

** - Full Chemical Analysis Available On Request

Additional material properties are available - please ask at **machine.ceramic@made-parts.com**

The values given on this data sheet were established on test pieces and identify the characteristic data of our products. These values should be used for guidance only as actual values will depend on individual geometry and application of each part.

For Further Information contact us at: machine.ceramic@made-parts.com