

# RocCera

## Alumina

### RocCera HP Alumina

Alumina - 99.9%

#### Typical Properties:

Chemical Composition	Weight %	Al <sub>2</sub> O <sub>3</sub> ~ 99.9%. (99.5 to 99.9%) Impurities (ppm): Fe- 7, Na- 13, Si - 40, K- 22, Ca -3
Crystal Structure		α-alumina
Density	gram/cc	3.86
Color		white
Young's Modulus @ RT	GPa / psi	380 / 55 million
MOR (Bending Strength)	MPa	410
Fracture Toughness	MPa√m	4
Thermal Shock critical ΔT for strength reduction retained strength after shock	°C	225 50%
Thermal Conductivity 50 °C 100 °C 500 °C 800 °C	W/m.K	16.6 14.0 8.0 6.8
Thermal Expansion (RT-500°C)	10 <sup>-6</sup> /C	7.21

771 Elmgrove Road  
Rochester NY 14624  
T: 585-426-0887  
F: 585-426-0884  
[www.roccera.com](http://www.roccera.com)  
[info@roccera.com](mailto:info@roccera.com)

