

# Material Technical Data Sheet



Material: Porous Mullite-Cordierite Ceramic  
 Apogee No.: R5  
 Product: Burner Blocks/Flame Targets

Property	Designation	R5 Material
Colour		Off White
Water Absorption	%	28.8
Bulk Density	(g/cc)	1.41
Specific Gravity		2.36
Apparent Porosity	%	40.4
Fired M.O.R (3 point flexure)	PSI	1057
Dielectric Strength	(V/0.001in)	52.2
Maximum Operating Temperature Under Non Loading Conditions	°C	1,300
	°F	2,350
Linear Coefficient of Thermal Expansion	(@25°C - 1000°C) x 10 <sup>-6</sup> /°C	3.08
Chemical Analysis	Designation	R5 Material
Al <sub>2</sub> O <sub>3</sub>	%	40.21
SiO <sub>2</sub>	%	49.31
CaO	%	1.42
MgO	%	7.06
Na <sub>2</sub> O	%	0.28
Fe <sub>2</sub> O <sub>3</sub>	%	0.78
TiO <sub>2</sub>	%	0.81
K <sub>2</sub> O	%	0.08
MnO	%	0.05
P <sub>2</sub> O <sub>5</sub>	%	0.00
Cr <sub>2</sub> O <sub>3</sub>	%	0.00
ZrO <sub>2</sub>	%	0.00
SUM	%	<b>99.99</b>

NOTE: THE INFORMATION IN THIS DATA SHEET IS FOR DESIGN GUIDANCE ONLY. APOGEE CERAMICS INC. DOES NOT WARRANT THIS DATA AS ABSOLUTE VALUES. FORMING METHODS AND SPECIFIC GEOMETRY COULD AFFECT PROPERTIES. SLIGHT ADJUSTMENTS CAN BE MADE TO SOME OF THE PROPERTIES TO ACCOMMODATE SPECIFIC CUSTOMER REQUIREMENTS. MOST OF THE MATERIALS IN THE TABLE ARE RESISTANT TO MECHANICAL EROSION AND CHEMICAL ATTACK.

**Apogee Ceramics Inc.**

71 Folsetter Drive Paris, ON, Canada N3L 0E2 Phone: (519)442-3636 Fax: (519) 442-9898