



CerMull Sintered Mullite

A high quality sintered Mullite with extensive use in the production of steel, glass and ceramic refractories.

Produced from high temperature sintering of Bayer process calcined alumina with selected low alkali kaolin.

Major phases identified by X-Ray Diffraction as mullite with traces of glass and corundum. Mullite - the most stable phase of the aluminosilicate system, is found rarely in nature inevitably subject to contamination from other rock formations and contaminants. Synthetic mullite enables complete control of the chemistry and physical properties promoting complete control of the final ceramic system.

Individual crystallites are in the order of 40-50 microns in length and are formed, interlocked on sintering to provide a tough matrix exhibiting:

- high thermal shock resistance
- low thermal expansion
- low glass content
- controlled surface properties

This property of "toughness" makes it extremely difficult to process as a raw material without contamination to a form acceptable to the industry. Cermatco is able to give complete specifications for an iron-free material.

Standard sizes are:

5 - 3 mm	-0.08mm
3 - 1.5 mm	45μ
1.5 - 0.7 mm	10μ
- 0.7 mm	
- 0.15 mm	

Chemical Analysis

Oxide	%
SiO ₂	27.8
TiO ₂	0.2
Al ₂ O ₃	71.1
Fe ₂ O ₃	0.15
CaO	0.15
MgO	0.09
K ₂ O	0.06
Na ₂ O	0.2

Free metallic iron levels are below 0.02% (lower for many size distributions)

Physical Properties

Bulk Density	2.85 g.cm ⁻³
Apparent Porosity	3.0 %
Thermal expansion (reversible)	0.5%
Refractoriness	1850°C

Packaging Options

25 kg net paper sacks wrapped on a wooden pallet of 1200 kgs.

1000-1500 kgs net big-bags wrapped on a wooden pallet.



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