Mullite, white fused

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

Produced from electrofusion of Bayer process calcined calcined alumina with selected low iron silica.

Major phases identified by X-ray Diffraction as mullite with traces of glass and corundum. Mullite - the most stable phase of the alumino-silicate 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 50 mm microns in length and are formed, on cooling from the melt to provide discreet crystals of mullite exhibiting:

- high thermal shock resistance
- low thermal expansion
- low class content
- controlled surface properties
- excellent to creep resistance

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

Standard sizes are:
5 - 3 mm
3 - 1.5 mm
1.5 - 0.7 mm
- 0.7 mm
- 0.15 mm
- 0.08 mm
45µ
10µ
2µ

Chemical Analysis

Oxide	%
SiO_2	23.5
TiO_2	0.05
Al_2O_3	76.0
Fe_2O_3	0.05
CaO	0.05
MgO	0.03
K_2O	0.1
Na_2O	0.16

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

Physical properties

Bulk density 3.16 g.cm $^{-3}$

Apparent porosity 3.0%

Thermal expansion (reversible) 0.5%

Refractoriness 1,850°C

Packaging options

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

1000 - 1,500 kgs nett big-bags wrapped on a wooden pallet.

Application: Advanced ceramics

Product type: Consumables, Chemicals

Production scale: Commercial, Lab, Pilot

Search tags: Refractory, Raw material