

All technical data presented represent typical results, unless stated otherwise as min/max values. No guarantee is made that material will meet exactly the values shown.

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 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 glass 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 ₂ O ₃ | 76.0 |
| Fe ₂ O ₃ | 0.05 |
| CaO | 0.05 |
| MgO | 0.03 |
| K ₂ O | 0.1 |
| Na ₂ O | 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

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