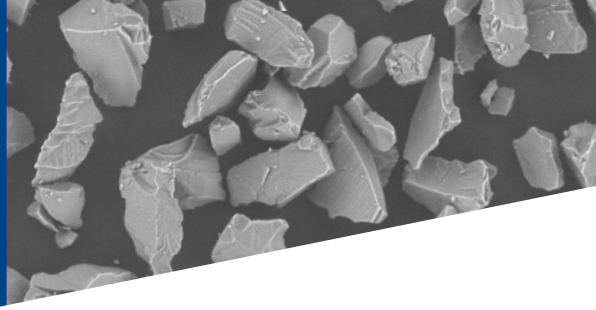
Thermal Spray Powders Technical Datasheet



Saint-Gobain Mullite (Aluminum Silicate)

POWDERS CHARACTERISTICS

Product	Nominal Size	Color	Morphology
#1020	15-55 micron	White	Irregular

TYPICAL CHEMISTRY

Product	Al_2O_3	SiO_2	Fe_2O_3	MgO	ZrO_2	Na_2O	Other
#1020	77%	22.5%	0.05%	0.10%	0.05%	0.10%	0.20%

KEY PROPERTIES

Saint-Gobain Mullite is a fused and crushed aluminum silicate that produces coatings with good dielectric properties. These coatings are also resistant to attack from molten aluminum.

Mullite's relatively low CTE makes it a good choice for applications on graphite, ceramic composites, and ceramic oxide substrates. It is also interesting for its resistance to thermal cycling.

When thermally sprayed, Mullite tends to form amorphous coatings which would recrystallize above 900°C. As a result, coatings formed with Mullite should not be utilized in applications where the working temperature exceeds 900°C (unless specific measures are taken during the spray process to avoid the amorphous phase)

TYPICAL APPLICATIONS

Enviornmental Barrier Coating for Ceramic Matrix Composite turbine components, Brake Pads, Good Coating for Graphite (prevents oxidation) in Molten Metal Contact Applications, Thermal Barrier Coating on Diesel Engine Parts

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