

# Thermal Spray Powders Technical Datasheet



## Saint-Gobain Mullite

### POWDER CHARACTERISTICS

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

### TYPICAL CHEMISTRY

Product	Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>	MgO	ZrO <sub>2</sub>	Na <sub>2</sub> O	Other
#1020	77%	22.5%	0.05%	0.10%	0.05%	0.10%	0.20%

### PROPERTIES AND APPLICATIONS

Saint-Gobain Mullite is a fused and crushed aluminum silicate. This material produces a relatively soft coating with good dielectric and thermal barrier properties. These coatings are also resistant to attack from molten aluminum.

Typical applications include dielectric insulation and thermal barrier coatings. More specifically, mullite has been used for aluminum contact coatings and as a thermal barrier in diesel engine parts. Mullite has also been used as a component of EBCs (Environmental Barrier Coatings) for use with CMC (Ceramic Matrix Composite) turbine components.

Saint-Gobain White Alumina powders will produce coatings with increased hardness and improved wear resistance compared to mullite coatings. High purity alumina products will also provide improved dielectric properties.

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