

# Thermal Spray Powders Technical Datasheet



## Saint-Gobain Magnesium Zirconate

### POWDER CHARACTERISTICS

Product	Nominal Size	Color	Morphology
#233, #233PW	20-75 micron	Cream	Irregular
#232	5-25 micron	Cream	Irregular

### TYPICAL CHEMISTRY

ZrO <sub>2</sub>	HfO <sub>2</sub>	MgO	SiO <sub>2</sub>	TiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	CaO	Fe <sub>2</sub> O <sub>3</sub>	Other
75%	1.50%	22.5%	0.20%	0.12%	0.30%	0.05%	0.06%	0.27%

### PROPERTIES AND APPLICATIONS

Saint-Gobain Magnesium Zirconate is a fused and crushed powder with good thermal barrier and thermal shock resistance properties. These coatings also resist particle erosion at temperatures up to 1500°C.

Typical applications include thermal barrier coatings for turbine parts and molten metal contact parts.

For higher service temperature applications, Saint-Gobain #204 series yttria stabilized zirconium oxide may produce coatings with improved thermal barrier properties.

Status	Customer Specifications
Approved	PWA 1333, GE A50TF155 Class A, and MHCP 0233.
Meets spec	Honeywell EMS 52432 and Rolls Royce 9507/21. Please inquire about others.