

# Thermal Spray Powders Technical Datasheet



## Saint-Gobain Brown Aluminum Oxide

### POWDER CHARACTERISTICS

| Product      | Nominal Size | Color | Morphology |
|--------------|--------------|-------|------------|
| #112         | 20-70 micron | Brown | Irregular  |
| #111, #119   | 20-55 micron | Brown | Irregular  |
| #110, #110GE | 15-45 micron | Brown | Irregular  |
| #117, #117GE | 5-30 micron  | Brown | Irregular  |

### TYPICAL CHEMISTRY

| Al <sub>2</sub> O <sub>3</sub> | TiO <sub>2</sub> | SiO <sub>2</sub> | Fe <sub>2</sub> O <sub>3</sub> | MgO   | ZrO <sub>2</sub> | Other |
|--------------------------------|------------------|------------------|--------------------------------|-------|------------------|-------|
| 95%                            | 3%               | 0.75%            | 0.25%                          | 0.25% | 0.25%            | 0.50% |

### PROPERTIES AND APPLICATIONS

Saint-Gobain Brown Aluminum Oxide is a fused and crushed powder that contains about 3% titania and produces a gray colored coating. These hard and dense coatings are chosen for their wear resistance and dielectric strength. Finer size distributions will produce less porosity and a smoother finish.

These coatings are used in printing, automotive, chemical, and aerospace applications. More specifically, they can be used in turbine seals and wear applications. Due to their low soda (Na<sub>2</sub>O) content, they are also used in some dielectric applications. For white coatings or enhanced coating performance, refer to our white and high purity aluminas.

| Status     | Customer Specifications  |
|------------|--|
| Approved   | GE A50TF87 CL A-C, CPW 281, PWA 1311   |
| Meets spec | Honeywell EMS 52432, Boeing 10-67 Type 3, RR 9507/36. Please inquire about others. |

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