

SL-290

Silicon Oxycarbide Refractory Filled Slurry



POLYMER-TO-CERAMIC™ TECHNOLOGY

Technical Data Sheet

SL-290 slurry is a vinyl substituted polysiloxane resin with refractory filler. SL-290 cures to form a thermoset at temperatures between 180°C and 250°C and forms a dense ceramic at temperatures between 850°C, to as high as 1,100°C. SL-290 functions ideally as a high temperature surface coating, an environmental barrier coating (EBC), a substitute for polymer infiltration, and a wear barrier.

Product Highlights

- Ideal for wet layup prepregging of fabric or chopped fiber.
- Low viscosity ideal for coating surfaces and infiltrating surfaces applied as a spray or dip coating operation.
- Optimally distributed refractory to improve packing of filler and resin.
- Stable pyrolysis cycles in inert environments (nitrogen, argon) at 2°C/min to 850°C - 1,100°C.
- Stable curing cycles in air environments up to 250°C.
- Simplifies coating of fibers, fabrics, and preforms.
- No solvents with virtually no odor.
- Easy clean up with standard solvents.
- Reduces densification and infiltration cycles.
- High mass yield through ceramic pyrolysis.
- Pyrolysis produces black and glassy appearance.

Properties of SL-290 Slurry

Density	1.22 - 1.24 g/cm ³
Appearance	Gray, thin liquid
Viscosity	<50 cP
Compatible Solvents	Hexane, Tetrahydrofuran, Toluene
Flash Point	62°C
Filler Type	Refractory; Proprietary Distribution
Filler Loading	<20 vol%
Polymer Type	Polyramic® SPR-212
Catalyst	None
DOT / IATA Regulations	Non Hazardous
Storage	Room Temperature*

* Refrigeration of container is recommended to extend shelf life. Periodic venting required.

Warranty

No analysis of this product is permitted. The data provided relates only to the material identified above, as supplied by Starfire Systems®, Inc. (SSI). Because conditions and methods of use of our products are beyond our control, this information should not be used as a substitution for customer's tests to ensure that SSI's products are safe, effective, and fully satisfactory for the intended end use. SSI's sole warranty is that the product will meet sales specifications in effect at the time of shipment.