

HS-1220 “Polysilazane Precursor Matrix” High Performance Resin System

Application guide

HS-1220 has unique advantages in that composites utilizing this material can be formed in several different manners to best suite the component/parts design.

Such as using;

- **Hot press-forming or compressed forming***; by introducing the powdered resin onto the single or on multiple layers of fiber reinforcement and then pressing them between heated plates to form B-staged or cured parts.
- **Injection Molding***; by thermally liquefying the resin and injecting the resin under pressure into the molding tool.
 - The powdered resin can be pre-mixed with chopped fibers or other materials of choice prior to thermally liquefying if desired.
- **Pre-Preg processing***; is accomplished by dissolving the powdered resin into a clear liquid with minimal amounts of organic solvents, such as but limited to: MEK, Acetone, T-bac, etc., then wetting the fiber enforcement to the proper percentage required and allow the solvents to evaporate in ambient environment until it becomes slightly sticky and then sandwich between slip sheet films or immediately place and layer the treated fiber reinforcement sheets into the intended mold tool for part manufacturing.

Curing can be accomplished in an air/oven environment or in an inert gas/autoclave environment for higher performance properties. See HS-1220 Tech sheet for basic cure temperatures, though the cure schedule will need to determined depending on the production process chosen and/or end-use air temperature resistance required.

*Lab testing should always be performed to determine the best procedure to follow to achieve the properties required.

The manufacturer feels that the data provided represents the product to be provided. However does not warrant or guarantee any finished product properties, as the conditions and methods of use are beyond our control. It is up to the end user to test and determine the suitability of the product for the intended use. Manufactures warranty does not extend beyond, that the product will consistently meet the standards as did the initial test materials supplied.