



Product Overview

P²SI N18 is a fluorinated condensation polyimide based on NR 150 chemistry that provides the highest thermo-oxidative stability of known polyimide composites. P²SI N18 is available on a variety of reinforcements in a number of product forms, including quartz, carbon, and glass tapes and textiles.

P²SI N18 exhibits superior toughness, thermo-oxidative stability, and mechanical properties to other commercially available high performance polyimides, including PMR-15 and AFR-PE-4.

In addition to performance, P²SI N18 provides excellent out-time, handling characteristics, and is suitable for automated fiber placement processes.

Key Features

- *Highest thermo-oxidative stability of any polyimide composite on the market*
- **Extremely tough and microcrack resistant**
- **No carcinogenic components**
- **Excellent dielectrics**
- **Autoclave processable**
- **Excellent out-time**
- **Suitable for automated fiber placement**
- **Shelf life: 6-12 months at 0°F**

For more information, contact:

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Durability and Performance

P²SI N18 Neat Resin Properties

Property	Value
Glass Transition Temperature (E')	360°C (680°F)
Mass Density	1.4 g/cm ³
Fracture Toughness	2.4 kJ/m ²
Tensile Strength	16 ksi (23°C) 4.5 ksi (316°C)

P²SI T650-35/N18 Unidirectional Composite Properties

Property	Value
Flexural Strength	215 ksi (23°C) 115 ksi (316°C)
Interlaminar Shear Strength	13 ksi (23°C) 6 ksi (316°C)

P²SI T650-35/N18 Composite Processing

N18 can be cured at 350°F under pressures of 200 psi, with free-standing postcure temperatures ranging from 600-750°F. Please contact P²SI for additional autoclave processing information.

Important Notice

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