

# TECHNICAL DATA



## Vector Systems Thermoplastic Material Advantages

- Infinite shelf-life without refrigeration
- Fast processing cycles (compared to thermosets)
- Lightweight
- High strength and stiffness
- Inherent toughness
- Solvent resistant
- Vibration damping
- Usable in highly contoured parts.
- Ability to remold and sonically weld
- Environmentally friendly - recyclable

The data listed has been obtained from carefully controlled samples considered to be representative of the product described. Because the properties of this product can be significantly affected by fabrication and testing techniques employed and since Vector Systems does not control the conditions under which its products are tested and used, Vector Systems cannot guarantee that the properties listed will be obtained with other processes and equipment.

## **Flexile™ PEEK**

Flexile™ PEEK polyetheretherketone is a semi-crystalline thermoplastic composite material that is flame retardant, offers excellent chemical and solvent resistance, demonstrates outstanding toughness and performs at high temperatures.

Flexile™ PEEK composite material can be supplied in a biaxial fabric form, as a unidirectional product, and as a multilayer, multidirectional pre-ply fabric. Multilayer and multidirectional products can be supplied in widths up to 95 inches (2.4 meters). Two dimensional and unidirectional products can be supplied in widths up to 195 inches (5 meters).

## **Neat Resin Properties**

Melting Point.....	650°F (343°C)
Specific Gravity.....	1.30
Processing Temperature.....	725°F (385°C)
Flammability rating (UL94.).....	V-0 @1.5 mm
Limiting Oxygen Index (0.4 and 3.2 mm).	24 and 35 % O <sub>2</sub>
Tensile Strength.....	16.0 ksi (110 MPa)
Tensile Modulus.....	0.54Msi (3.7 GPa)
Elongation at Yield.....	25%
Flexural Strength.....	25.4 ksi (175 MPa)
Flexural Modulus.....	0.62Msi (4.3 GPa)

For more information, data, samples and pricing contact:  
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