

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™ PC FST

Flexile™ PC FST is a modified polycarbonate thermoplastic composite material that is flame resistant with low smoke emission. It exceeds the OSU 55/55 requirement and is ideal for transportation interior and structural applications, due to its flammability properties and outstanding toughness

Flexile PC 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

Vicat Softening Temp. Rate B/50.....	275°F (135°C)
Specific Gravity.....	1.31
Processing Temperature.....	565°F (295°C)
Moisture Absorption (23°C/Sat.).....	0.24 %
Moisture Absorption (23°C/50% RH.)...	0.13 %
Tensile Strength.....	10.9 ksi (75.0 MPa)
Tensile Modulus.....	0.37 Msi (2.57 GPa)
Elongation at Yield.....	6.7%
Flexural Strength.....	16.5 ksi (114 MPa)
Flexural Modulus.....	0.36 Msi (2.51 GPa)
Izod Impact, notched, 23°C.....	323 J/m
Izod Impact, notched, -30°C.....	108 J/m
OSU Total Heat Release (2 minute).....	<55 kW-min/m ²
OSU Peak Heat Release rate (5minute)...	<55 kW/m ²
NBS Smoke Density, Flaming, Dmax.....	<30

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