



## VERTEC 1020™

## Compression Molded

VERTEC 1020 is a carbon-graphite filled PTFE (polytetrafluorethylene) material. Its ability to run under dry or wet conditions along with its low wear rate makes it an ideal high temperature bearing material. It also offers high load bearing capability, relative to other fluoropolymers, for many general-purpose industrial applications.

<i>Physical Properties</i>	<i>ASTM Method</i>	<i>Typical Values</i>
Specific Gravity	D792	2.06 gr/cm <sup>3</sup>
Water Absorption (24hrs. @73.4°F)	D570	.007 %
Color	N/A	

<i>Mechanical Properties</i>		
Tensile Strength	D1708	2300 psi
Tensile Elongation	D1708	105 %
Flexural Strength	D790	4300 psi
Flexural Modulus	D790	240,000 psi
Compressive Strength	D695	2500 psi
Compressive Modulus	D695	85,000 psi
Impact Strength (Izod, notched)	D256	ft-lb/in
Hardness	Shore D	86

<i>Tribological Properties</i>		
Coefficient of Friction		
Static	D3702	.08
Dynamic	D3702	.09
Wear Rate (PV: 20,000 psi-fpm)	D3702	µin/min

<i>Thermal Properties</i>		
Coefficient of Linear Thermal Expansion (78 to 400°F)	D696	47 10 <sup>-6</sup> /°F
Heat Deflection Temperature (@264 psi)	D648	°F
Glass Transition Temperature (T <sub>g</sub> )	D3418	
Continuous Service Temperature (Max @ no load)		500 °F
Melting Point		621 °F

<i>Electrical Properties</i>		
Volume Resistivity	D257	10 <sup>16</sup> ohm-cm
Dielectric Strength	D149	KV/mm
Dielectric Constant	D150	50Hz, 200°C

*Note: Property values should be interpreted as typical rather than minimum value.* All technical information and recommendations are presented in good faith, based upon laboratory and real-world tests believed to be reliable and practical. However, Vertec Polymers cannot guarantee the accuracy or completeness of this information, and it is the customer's responsibility to determine product suitability to any given application.

Rev. Date 05/2004