VERTEC 1521

Compression Molded

VERTEC 1521™ is a filled modified PTFE (polytetrafluorethylene) material. It exhibits good sealability, low coefficient of friction and very low wear rate under dry running conditions. It is a little harder and a bit more abrasive than other similar use materials, 1011, and 1110, however it wears better and can handle higher speed applications. It is an ideal sealing material for use against metal surfaces in dynamic applications. It has performed especially well in air compressor applications such as piston cups.

Physical Properties	***ASTM Method***	***Typical Values***	
Specific Gravity	D792	1.89	gr/cm^3
Water Absorption (24hrs. @73.4°F)	D570		%
Color	N/A	Black	
Mechanical Properties			
Tensile Strength	D1708	2500	psi
Tensile Elongation	D1708	210	%
Flexural Strength	D790	2400	psi
Flexural Modulus	D790	150,000	psi
Compressive Strength	D695	1500	psi
Compressive Modulus	D695	120,000	psi
Impact Strength (Izod, notched)	D256		ft-lb/in
Hardness	Shore D	63	
Tribological Properties			
Coefficient of Friction			
Static	D3702	.14	
Dynamic	D3702	.09	
Wear Rate (PV: 20,000 psi-fpm)	D3702		µin/min
Thermal Properties			
Coefficient of Linear Thermal Expansion (78 to 400°F)	D696	50	10^{-6}/°F
Heat Deflection Temperature (@264 psi)	D648		°F
Glass Transition Temperature (Tg)	D3418	266	
Continuous Service Temperature (Max @ no load)		500	°F
Melting Point		648	°F
Electrical Properties			
Volume Resistivity	D257		10^{16} 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.

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