Sulfone & Sulfide Polymers

PPS, PES

VERTEC 7010™

Compression Molded

VERTEC 7010 is glass reinforced PPS (polyphenylene sulfide) material. Its high modulus, low creep, broad chemical resistance and good dimensional stability at elevated temperatures make it suitable for use as structural components under static loads. Due to the low ductility of PPS, use of this material for applications where high impact loads are present must be carefully examined.

Physical Properties	*ASTM Method*	*Typical Values*	
Specific Gravity	D792	1.67	gr/cm^3
Water Absorption (24hrs. @73.4°F)	D570	.03	%
Color	N/A	Black	
Mechanical Properties			
Tensile Strength	D1708	7600	psi
Tensile Elongation	D1708	2	%
Flexural Strength	D790	23,000	psi
Flexural Modulus	D790	1.0	10^6 psi
Compressive Strength	D695	23,800	psi
Compressive Modulus	D695	1.3	10^6 psi
Impact Strength (Izod, notched)	D256	1	ft-lb/in
Hardness	Shore D	86	
Tribological Properties			
Coefficient of Friction			
Static	D3702		
Dynamic	D3702	.48	
Wear Rate (PV: 20,000 psi-fpm)	D3702		µin/min
Thermal Properties			
Coefficient of Linear Thermal Expansion (78 to 400°F)	D696	24	10^{-6}/°F
Heat Deflection Temperature (@264 psi)	D648	490	°F
Glass Transition Temperature (Tg)	D3418		
Continuous Service Temperature (Max @ no load)		450	°F
Melting Point		540	°F
Electrical Properties			
Volume Resistivity	D257		
Dielectric Strength	D149	385	KV/mm
Dielectric Constant	D150		

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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