

Material Properties

Glass Filled PPS

Material code: 7010

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 (24 hrs. @ 74°F)	D570	0.03 %
Color	N/A	Black
Mechanical Properties		
Tensile Strength	D1708	6700 psi
Elongation	D1708	
• At Break		1.0%
Flexural Strength	D790	23,000 psi
Flexural Modulus	D790	1,000,000 psi
Compressive Strength	D695	23,800 psi
Compressive Modulus	D695	1,250,000 psi
Impact Strength (Izod, notched)	D256	1 ft-lb/in
Hardness	Shore D	86
Tribological Properties		
Coefficient of friction	D3702	
• Static		0.52
• Dynamic		0.48
Wear rate (PV: 20,000 psi-fpm)	D3702	2.0 uin/min
Thermal Properties		
Coefficient of Linear Thermal Expansion (78-400°F)	D696	26 10 ⁻⁶ °F
Heat Deflection Temperature (F/C @ 264 psi)	D648	490°F
Glass Transition Temperature (T _g)	D3418	200°F
Melting Point		540°F
Continuous Service Temperature (Max @ no load)		430°F
Electrical Properties		
Volume Resistivity (ohm-cm) @ 50% RH	D257	10 ¹⁶ ohm-cm
Dielectric Strength	D149	385 KV/mm
Dielectric Constant	D150	Hz, 200°F

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

