

TYPICAL PROPERTIES of REPRESENTATIVE FILLED PPS GRADES

ASTM or UL test	Property	40% Glass Reinforced	Bearing Grade
<i>PHYSICAL</i>			
D792	Density (lb/in ³) (g/cm ³)	0.061 1.70	0.056 1.55
D570	Water Absorption, 24 hrs (%)	0.02	0.02
<i>MECHANICAL</i>			
D638	Tensile Strength (psi)	13,000	10,000
D638	Tensile Modulus (psi)	730,000	800,000
D638	Tensile Elongation at Break (%)	2.0	1.5
D790	Flexural Strength (psi)	23,000	15,000
D790	Flexural Modulus (psi)	1,000,000	1,000,000
D695	Compressive Strength (psi)	24,000	15,000
D695	Compressive Modulus (psi)	1,300,000	800,000
D785	Hardness, Rockwell	M94 / R125	M93 / R126
D256	IZOD Notched Impact (ft-lb/in)	1.0	1.0
<i>THERMAL</i>			
D696	Coefficient of Linear Thermal Expansion (x 10 ⁻⁵ in./in./°F)	2.5	1.7
D648	Heat Deflection Temp (°F / °C) at 264 psi	490 / 254	490 / 254
D3418	Glass Transition Temp (°F / °C)	n.a.	n.a.
-	Max Operating Temp (°F / °C)	450 / 232	450 / 232
C177	Thermal Conductivity (BTU-in/ft ² -hr-°F) (x 10 ⁻⁴ cal/cm-sec-°C)	2.10 7.23	2.20 7.57
UL94	Flammability Rating	V-O	V-O
<i>ELECTRICAL</i>			
D149	Dielectric Strength (V/mil) short time, 1/8" thick	385	-
D150	Dielectric Constant at 1 MHz	-	-
D150	Dissipation Factor at 1 MHz	-	-
D257	Volume Resistivity (ohm-cm)at 50% RH	-	-