



TYPICAL PROPERTIES of TORLON® PAI				
ASTM or UL test	Property	Torlon® 4203 <u>Elect. Grade</u>	Torlon® 4301 <u>Bearing Grade</u>	Torlon® 5530 <u>Glass-Filled</u>
<b>PHYSICAL</b>				
D792	Density (lb/in <sup>3</sup> )	0.051	0.052	0.059
	(g/cm <sup>3</sup> )	1.41	1.45	1.61
D570	Water Absorption, 24 hrs (%)	0.4	0.4	0.3
<b>MECHANICAL</b>				
D638	Tensile Strength (psi)	18,000	12,000	15,000
D638	Tensile Modulus (psi)	600,000	800,000	900,000
D638	Tensile Elongation at Break (%)	10	3	3
D790	Flexural Strength (psi)	24,000	23,000	20,000
D790	Flexural Modulus (psi)	600,000	800,000	900,000
D695	Compressive Strength (psi)	24,000	22,000	27,000
D695	Compressive Modulus (psi)	700,000	950,000	600,000
D785	Hardness, Rockwell	E80(M120)	E70(M106)	E85(M125)
D256	IZOD Notched Impact (ft-lb/in)	2.0	0.8	0.7
<b>THERMAL</b>				
D696	Coefficient of Linear Thermal Expansion (x 10 <sup>-5</sup> in./in./°F)	1.7	1.4	2.6
D648	Heat Deflection Temp (°F / °C) at 264 psi	532 / 278	534 / 279	520 / 271
D3418	Glass Transition Temp (°F / °C)	527 / 275	527 / 275	527 / 275
-	Max Operating Temp (°F / °C)	500 / 260	500 / 260	500 / 260
C177	Thermal Conductivity (BTU-in/ft <sup>2</sup> -hr-°F)	1.80	3.70	2.50
	(x 10 <sup>-4</sup> cal/cm-sec-°C)	6.20	12.8	8.61
UL94	Flammability Rating	V-0	V-0	V-0
<b>ELECTRICAL</b>				
D149	Dielectric Strength (V/mil) short time, 1/8" thick	580	-	700
D150	Dielectric Constant at 1 MHz	4.2	6.0	6.3
D150	Dissipation Factor at 1 MHz	0.026	0.037	0.022
D257	Volume Resistivity (ohm-cm) at 50% RH	> 10 <sup>16</sup>	> 10 <sup>13</sup>	> 10 <sup>13</sup>

Data provided is for reference purposes only. Additional testing may be required for design specifications or quality control. All values at 73°F unless otherwise stated.

