

### TYPICAL ROOM TEMPERATURE PROPERTIES OF POLYETHERIMIDE (PEI)

*Ranges indicate properties dependent on grade.*

— TEST METHOD —		Property	VALUE	
ISO	ASTM		SI	English
1183	D792	<b>Specific gravity</b>	1.3-1.5	1.3-1.5
527	D638	<b>Tensile strength</b>	113-117 MPa	16.5-17 kpsi
527	D638	<b>Elongation at break (%)</b>	2-80	2-80
527	D638	<b>Tensile modulus</b>	3.3-5.9 GPa	0.48-0.85 Mpsi
—	D790	<b>Flexural modulus</b>	3.4-6.2 GPa	0.50-0.90 Mpsi
604	D695	<b>Compressive modulus</b>	3.3-4.1 GPa	0.48-0.60 Mpsi
180/1A	D256	<b>Notched izod impact</b>	27-54 J/m	0.5-1.0 ft-lb/in <sup>2</sup>
2039-2	D785	<b>Hardness, Rockwell</b>	M112-M115	M112-M115
—	—	<b>Coefficient of friction dynamic</b>	0.18-0.42	0.18-0.42
—	E831 (TMA)	<b>Coefficient of linear thermal expansion × 10<sup>-5</sup></b>	2.0-5.6 mm/mm-°C	1.1-3.1 in/in-°F
75	D648	<b>Heat deflection temperature</b> At 1.8 MPa (264 psi)	199-210°C	390-410°F
—	D3418	<b>Glass transition temperature</b>	215°C	419°F
—	—	<b>Continuous service temperature in air</b>	170°C	338°F
—	UL 94	<b>Flammability</b> At 3.1 mm (.125") estimated	V-0	V-0
IEC 243	D149	<b>Dielectric strength</b>	conductive – 33 kV/mm	conductive – 830 V/mil
IEC 93	D257	<b>Volume resistivity</b>	10 <sup>4</sup> -7×10 <sup>17</sup> ohm-cm	10 <sup>4</sup> -2×10 <sup>18</sup> ohm-in
IEC 250	D150	<b>Dielectric constant</b> At 1 MHz	conductive – 3.7	conductive – 3.7
IEC 250	D150	<b>Dissipation factor</b> At 1 MHz	conductive – 0.0013	conductive – 0.0013
62	D570	<b>Water absorption, 24 h, 1/8-in thk (%)</b>	0.18-0.30	0.18-0.30

Taken from *Engineering Plastic Products – Stock Shapes for Machining*, Quadrant Engineering Plastic Products, 1996.

These products are available from