



# PEKK Plus<sup>®</sup> KK827H-BK

Polyaryletherketone, Standard Flow, Unfilled

<b>General</b>	<b>ASTM No.</b>	<b>US Value</b>	<b>SI Unit</b>
<b>Form</b>	---	Pellets	Pellets
<b>Specific Gravity</b>	D792	1.3	1.3
<b>Water Absorption (24hr. @ 23 °C, %)</b>	D570	0.15%	0.15%
<b>Linear Mold Shrinkage, in/in</b>	D955	0.01	0.01
<b>Mechanical</b>			
<b>Tensile Strength</b>	D638/D3039/ D3039M	16 kpsi	110 MPa
<b>Tensile Modulus</b>	D638/D3039/ D3039M	0.6 Mpsi	4.1 GPa
<b>Elongation (Break), %</b>	D638/D3039/ D3039M	30%	30%
<b>Flexural Strength</b>	D790	25 kpsi	172 MPa
<b>Flexural Modulus</b>	D790	0.6 Mpsi	4.1 GPa
<b>Izod, Notched, ft-lb/in @ 1/8"</b>	D256	1	0.04 J/cm
<b>Hardness, Rockwell M</b>	D785/D2240	95	95
<b>Thermal</b>			
<b>Melting Point, °F</b>	DSC/D3418	680	360 °C
<b>Tg °F</b>	DSC/D3418	350	177 °C
<b>CLTE, linear <math>\mu</math>in/in - °F (&lt;Tg)</b>	D696/E831	20	36 $\mu$ m/m - °C
<b>Thermal Conductivity, BTU-In/Hr-ft<sup>2</sup>-°F</b>	F443/C177	1.7	0.25 W/m-K
<b>HDT@ 264 psi, °F</b>	DMA/D648	375	191 °C
<b>Electrical</b>			
<b>Dielectric Strength V/mil</b>	D149	600	236 V/cm
<b>Dielectric Constant @1Khz</b>	D150	3.3	3.3
<b>Dissipation Factor @1Khz</b>	D150	0.004	0.004
<b>Volume Resistivity ohm/cm x 10<sup>16</sup></b>	D257	1 $\Omega$ in	2.5 $\Omega$ cm
<b>Surface Resistivity ohm/sq x 10<sup>16</sup></b>	D257	2 $\Omega$ in	5.1 $\Omega$ cm



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