



# C4050 PEKK

## Linear (Semi-Crystalline), High Flow, Unfilled PEKK

General	ASTM No.	US Value	SI Unit
Form	---	Pellets (Amber)	Pellets (Amber)
Composition (Polyetherketoneketone)	---	Neat Resin	Neat Resin
Specific Gravity lb/ in <sup>3</sup>	D792	0.05	1.31 g/ml
Crystallinity, %	---	32	32
Linear Mold Shrinkage, in/in		0.001	0.001 cm/cm
Moisture Absorption@24., %	D570	<0.2	<0.2 %
Melt Index (8.4kg @360 °C ), g/10 min.	---	120	120 g/10 min
<b>Mechanical</b>			
Tensile Strength (Break), Kpsi	D638	16	110 MPa
Tensile Modulus, Mpsi	D638	0.64	4.4 Gpa
Elongation (Break), %	D638	>12	>12 %
Flexural Strength (Yield) Kpsi	D790	28	193 Mpa
Flexural Modulus Mpsi	D790	0.66	4.6 Gpa
Izod, Notched ft-lb/in @1/8"	D256	1	0.53 J/cm
Compressive Strength, Kpsi	D695	30	207 Mpa
Shear Strength, Kpsi	D732	20	138 Mpa
Hardness, Rockwell M	D 785	88	88
<b>Thermal</b>			
Melting Point, °F	DSC	680	360 °C
Tg (Glass Transition), °F	DSC	320	160 °C
Flammability Rating (UL 94)	UL 94	V-0	V-0
HDT @264psi, °F	D648	347	175 °C
Thermal Conductivity, BTU-In/hr- ft <sup>2</sup> - °F	C177	1.75	0.25 W/m-K
CTE, linear $\mu$ in/in- °F (< Tg)	D696	12	21 $\mu$ m/m- °C
Limited Oxgen Index, % O <sub>2</sub>	D2863	40	40 % O <sub>2</sub>
UL Cont. Use Temp, °F	---	500	260 °C
NBS Smoke Density	E662-79	<10	<10
<b>Electrical</b>			
Dielectric Strength, V/mil	D149	600	600 V/mil
Dielectric Constant @ 1 KHz	D150	3.3	3.3



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Dissipation Factor @ 1 KHz	D150	0.004	0.004
Volume Resistivity Ohm-cm $\times 10^{16}$	D257	1	1
Surface Resistivity, Ohm/sq $\times 10^{16}$	D257	2	2
<b>Other</b>			
Kinetic Coefficients of Friction	D1894	0.17	0.17
Static Coefficients of Friction	D1894	0.26	0.26

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