

Overview of materials for PEKK, Unreinforced

Category : Polymer , Thermoplastic , Polyketone , PEKK, Unreinforced

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "PEKK, Unreinforced". Each property range of values reported is minimum and maximum values of appropriate MatWeb entries. The comments report the average value, and number of data points used to calculate the average. The values are not necessarily typical of any specific grade, especially less common values and those that can be most affected by additives or processing methods.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Overview-of-materials-for-PEKK-Unreinforced.php

Physical Properties	Metric	English	Comments
Density	1.28 - 1.31 g/cc	0.0462 - 0.0473 lb/in ³	Average value: 1.30 g/cc Grade Count:3
Water Absorption	0.200 %	0.200 %	Average value: 0.200 % Grade Count:3
Linear Mold Shrinkage	0.00500 - 0.0100 cm/cm	0.00500 - 0.0100 in/in	Average value: 0.00833 cm/cm Grade Count:3
Melt Flow	30.0 - 120 g/10 min	30.0 - 120 g/10 min	Average value: 63.3 g/10 min Grade Count:3

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	86.0 - 88.0	86.0 - 88.0	Average value: 87.3 Grade Count:3
Tensile Strength, Ultimate	90.0 - 110 MPa	13100 - 16000 psi	Average value: 103 MPa Grade Count:3
Elongation at Break	12.0 - 80.0 %	12.0 - 80.0 %	Average value: 50.7 % Grade Count:3
Modulus of Elasticity	3.40 - 4.40 GPa	493 - 638 ksi	Average value: 4.07 GPa Grade Count:3
Flexural Yield Strength	138 - 193 MPa	20000 - 28000 psi	Average value: 175 MPa Grade Count:3
Flexural Modulus	3.40 - 4.60 GPa	493 - 667 ksi	Average value: 4.20 GPa Grade Count:3
Compressive Yield Strength	103 - 207 MPa	14900 - 30000 psi	Average value: 172 MPa Grade Count:3
Poissons Ratio	0.400 - 0.450	0.400 - 0.450	Average value: 0.417 Grade Count:3
Shear Modulus	1.17 - 1.57 GPa	170 - 228 ksi	Average value: 1.44 GPa Grade Count:3
Izod Impact, Notched	0.500 - 0.630 J/cm	0.937 - 1.18 ft-lb/in	Average value: 0.553 J/cm Grade Count:3
Coefficient of Friction	0.173 - 0.186	0.173 - 0.186	Average value: 0.177 Grade Count:3

Coefficient of Friction, Static Mechanical Properties	0.262 - 0.285 Metric	0.262 - 0.285 English	Average value: 0.270 Grade Count:3 Comments
--	-------------------------	--------------------------	--

Thermal Properties	Metric	English	Comments
CTE, linear	21.0 - 77.0 $\mu\text{m}/\text{m}\cdot\text{C}^\circ$	11.7 - 42.8 $\mu\text{in}/\text{in}\cdot\text{F}^\circ$	Average value: 39.7 $\mu\text{m}/\text{m}\cdot\text{C}^\circ$ Grade Count:3
Thermal Conductivity	0.250 W/m-K	1.74 BTU-in/hr-ft ² -F	Average value: 0.250 W/m-K Grade Count:3
Melting Point	306 - 360 $^\circ\text{C}$	583 - 680 $^\circ\text{F}$	Average value: 342 $^\circ\text{C}$ Grade Count:3
Maximum Service Temperature, Air	250 - 260 $^\circ\text{C}$	482 - 500 $^\circ\text{F}$	Average value: 257 $^\circ\text{C}$ Grade Count:3
Deflection Temperature at 1.8 MPa (264 psi)	141 - 175 $^\circ\text{C}$	286 - 347 $^\circ\text{F}$	Average value: 164 $^\circ\text{C}$ Grade Count:3
Glass Transition Temp, Tg	155 - 160 $^\circ\text{C}$	311 - 320 $^\circ\text{F}$	Average value: 158 $^\circ\text{C}$ Grade Count:3
Flammability, UL94	V-0	V-0	Grade Count:3
NBS Smoke Density	10.0	10.0	Average value: 10.0 Grade Count:3
Oxygen Index	40.0 %	40.0 %	Average value: 40.0 % Grade Count:3

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+16 ohm-cm	1.00e+16 ohm-cm	Average value: 1.00e+16 ohm-cm Grade Count:3
Surface Resistance	2.00e+16 ohm	2.00e+16 ohm	Average value: 2.00e+16 ohm Grade Count:3
Dielectric Constant	3.30	3.30	Average value: 3.30 Grade Count:3
Dielectric Strength	23.6 kV/mm	599 kV/in	Average value: 23.6 kV/mm Grade Count:3
Dissipation Factor	0.00400	0.00400	Average value: 0.00400 Grade Count:3

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China