

Murfeldt Murpec® Polyetheretherketone

Category : Polymer , Thermoplastic , Polyketone , Polyetheretherketone (PEEK) , Polyetheretherketone, PEEK, Unreinforced

Material Notes:

In comparison with other thermoplastics, Murpec® has an exceptionally low thermal expansion coefficient. This property provides optimum dimensional stability and means that dimensions do not change even if used in wet environments. Because of the high glass transition temperature, the material's rigidity and strength are retained almost in their entirety even at high temperatures. Special Properties:• High wear resistance• Low expansion coefficient• Electrically isolating• High temperature resistance• Flame-resistant• High compressive strength• High resistance to energy radiation• Excellent resistance to chemicals and heating steam• Approved for use in the food industry (EU and/or FDA)Information provided by Murfeldt Kunststoffe GmbH & Co. KG.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Murfeldt-Murpec-Polyetheretherketone.php

Physical Properties	Metric	English	Comments
Density	1.31 g/cc	0.0473 lb/in ³	ISO 1183-1
Moisture Absorption at Equilibrium	0.20 % @Temperature 23.0 °C	0.20 % @Temperature 73.4 °F	50% RH
Water Absorption at Saturation	0.45 % @Temperature 23.0 °C	0.45 % @Temperature 73.4 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	105	105	ISO 2039-2
Hardness, Shore D	87	87	DIN 53505
Ball Indentation Hardness	190 MPa	27600 psi	ISO 2039-1
Tensile Strength	115 MPa	16700 psi	ISO 527-1/-2
Elongation at Break	17 %	17 %	ISO 527-1/-2
Modulus of Elasticity	4.30 GPa	624 ksi	
Compressive Yield Strength	38.0 MPa @Strain 1.00 %	5510 psi @Strain 1.00 %	dry; ISO 604
	75.0 MPa @Strain 2.00 %	10900 psi @Strain 2.00 %	dry; ISO 604
Charpy Impact Unnotched	NB	NB	ISO 179-1/1eU
	NB	NB	ISO 179
Charpy Impact, Notched	0.350 J/cm ²	1.67 ft-lb/in ²	ISO 179-1/1eA

Mechanical Properties	Metric	English	Comments
Coefficient of Friction, Dynamic	0.30	0.30	
Sand Slurry	0.30	0.30	µm/km

Thermal Properties	Metric	English	Comments
CTE, linear	50.0 µm/m-°C	27.8 µin/in-°F	
	@Temperature 23.0 - 60.0 °C	@Temperature 73.4 - 140 °F	
	55.0 µm/m-°C	30.6 µin/in-°F	
	@Temperature 23.0 - 100 °C	@Temperature 73.4 - 212 °F	
	130 µm/m-°C	72.2 µin/in-°F	
	@Temperature 150 °C	@Temperature 302 °F	
Melting Point	340 °C	644 °F	ISO 11357-1
Maximum Service Temperature, Air	250 °C	482 °F	
	@Time 1.80e+7 sec	@Time 5000 hour	
Minimum Service Temperature, Air	310 °C	590 °F	
	@Time <=86400 sec	@Time <=24.0 hour	
Glass Transition Temp, Tg	143 °C	289 °F	ISO 11357-1
Flammability, UL94	V-0	V-0	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	>= 1.00e+14 ohm-cm	>= 1.00e+14 ohm-cm	IEC 60093
Dielectric Constant	3.2	3.2	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	3.2	3.2	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Loss Index	24.0 kV/mm	610 kV/in	IEC 60243-1
Dielectric Loss Index	0.0010	0.0010	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.0020	0.0020	IEC 60250

Electrical Properties	@Frequency 1.00e+6 Metric	@Frequency 1.00e+6 English	Comments
-----------------------	------------------------------	-------------------------------	----------

Compliance Properties	Metric	English	Comments
European Food 1935/2004	Yes	Yes	
FDA	Yes	Yes	

Descriptive Properties	Value	Comments
Color	Natural/Black	

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