

## Murtfeldt Murpec® SP Polyetheretherketone

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

### Material Notes:

Modified Murpec® SP provides excellent slide properties in addition to good mechanical properties. Murpec® SP also offers improved wear behavior due to its special additives. Special Properties:• Better slide properties• Increased wear resistance• Very low expansion coefficient• High temperature resistance• Flame-resistant• High compressive strength• High resistance to energy radiation• Excellent resistance to chemicals and heating steam  
Information provided by Murtfeldt Kunststoffe GmbH & Co. KG.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Murtfeldt-Murpec-SP-Polyetheretherketone.php](http://www.lookpolymers.com/polymer_Murtfeldt-Murpec-SP-Polyetheretherketone.php)

Physical Properties	Metric	English	Comments
Density	1.45 g/cc	0.0524 lb/in <sup>3</sup>	ISO 1183-1
Moisture Absorption at Equilibrium	0.16 % @Temperature 23.0 °C	0.16 % @Temperature 73.4 °F	50% RH
Water Absorption at Saturation	0.35 % @Temperature 23.0 °C	0.35 % @Temperature 73.4 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	85	85	ISO 2039-2
Hardness, Shore D	87	87	DIN 53505
Ball Indentation Hardness	215 MPa	31200 psi	ISO 2039-1
Tensile Strength at Break	85.0 MPa	12300 psi	ISO 527-1/-2
Elongation at Break	3.0 %	3.0 %	ISO 527-1/-2
Modulus of Elasticity	5.90 GPa	856 ksi	
Compressive Yield Strength	44.0 MPa @Strain 1.00 %	6380 psi @Strain 1.00 %	dry; ISO 604
	86.0 MPa @Strain 2.00 %	12500 psi @Strain 2.00 %	dry; ISO 604
Charpy Impact Unnotched	2.50 J/cm <sup>2</sup>	11.9 ft-lb/in <sup>2</sup>	ISO 179-1/1eU
	2.50 J/cm <sup>2</sup>	11.9 ft-lb/in <sup>2</sup>	ISO 179
Charpy Impact, Notched	0.300 J/cm <sup>2</sup>	1.43 ft-lb/in <sup>2</sup>	ISO 179-1/1eA
Coefficient of Friction, Dynamic	0.15	0.15	

Mechanical Properties	Metric	English	Comments
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Thermal Properties	Metric	English	Comments
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CTE, linear	35.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	19.4 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	
	@Temperature 23.0 - 60.0 $^\circ\text{C}$	@Temperature 73.4 - 140 $^\circ\text{F}$	
	40.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	22.2 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	
	@Temperature 23.0 - 100 $^\circ\text{C}$	@Temperature 73.4 - 212 $^\circ\text{F}$	
	85.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	47.2 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	
	@Temperature 150 $^\circ\text{C}$	@Temperature 302 $^\circ\text{F}$	
Melting Point	340 $^\circ\text{C}$	644 $^\circ\text{F}$	ISO 11357-1
Maximum Service Temperature, Air	250 $^\circ\text{C}$	482 $^\circ\text{F}$	
	@Time 1.80e+7 sec	@Time 5000 hour	
	310 $^\circ\text{C}$	590 $^\circ\text{F}$	
	@Time <=86400 sec	@Time <=24.0 hour	
Minimum Service Temperature, Air	-20.0 $^\circ\text{C}$	-4.00 $^\circ\text{F}$	
Glass Transition Temp, Tg	143 $^\circ\text{C}$	289 $^\circ\text{F}$	ISO 11357-1
Flammability, UL94	V-0	V-0	

Compliance Properties	Metric	English	Comments
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FDA	No	No	
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Descriptive Properties	Value	Comments
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Color	Black	
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## Contact Songhan Plastic Technology Co.,Ltd.

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