

## Murtfeldt Material "S"® 1000 Black Antistatic Polyethylene, Conductive

Category : Polymer , Thermoplastic , Polyethylene (PE) , HDPE , High Density Polyethylene (HDPE), UHMW PE Ultra High Molecular Weight

### Material Notes:

Material "S"® 1000 is exclusively produced from ultra-high molecular weight polyethylene powder that is mixed with finely milled Original Material "S"®. The fine milled material is compression-molded at high pressure and temperatures to form new semi-finished products. This results in a high-quality material with an exceptional price/performance ratio that is characterized by exceptional abrasion resistance and good slide properties. Special Properties: • Physiologically safe • Good wear resistance properties • Good slide properties • Good anti-adhesion properties • No moisture absorption • Antistatic Information provided by Murtfeldt Kunststoffe GmbH & Co. KG.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Murtfeldt-Material-S-1000-Black-Antistatic-Polyethylene-Conductive.php](http://www.lookpolymers.com/polymer_Murtfeldt-Material-S-1000-Black-Antistatic-Polyethylene-Conductive.php)

Physical Properties	Metric	English	Comments
Density	<= 0.940 g/cc	<= 0.0340 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption at Equilibrium	<= 0.010 %	<= 0.010 %	ISO 62
Water Absorption at Saturation	<= 0.010 %	<= 0.010 %	ISO 62

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	64	64	DIN 53505
Ball Indentation Hardness	38.0 MPa	5510 psi	
Tensile Strength	24.6 MPa	3570 psi	ISO 527
Tensile Strength, Yield	>= 15.0 MPa	>= 2180 psi	ISO 527
Elongation at Break	230 %	230 %	ISO 527
Modulus of Elasticity	0.950 GPa	138 ksi	
Compressive Yield Strength	6.00 MPa	870 psi	ISO 604
	@Strain 1.00 %	@Strain 1.00 %	
	10.5 MPa	1520 psi	
	@Strain 2.00 %	@Strain 2.00 %	ISO 604
	18.0 MPa	2610 psi	ISO 604
	@Strain 5.00 %	@Strain 5.00 %	
Charpy Impact, Notched	>= 14.0 J/cm <sup>2</sup>	>= 66.6 ft-lb/in <sup>2</sup>	ISO 179
Coefficient of Friction, Dynamic	0.10 - 0.20	0.10 - 0.20	
Sand Slurry	120	120	value in %

Thermal Properties	Metric	English	Comments
CTE, linear	200 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	111 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	
	@Temperature 23.0 - 60.0 $^{\circ}\text{C}$	@Temperature 73.4 - 140 $^{\circ}\text{F}$	
Thermal Conductivity	0.400 W/m-K	2.78 BTU-in/hr-ft <sup>2</sup> - $^{\circ}\text{F}$	ISO 52612
Melting Point	130 - 135 $^{\circ}\text{C}$	266 - 275 $^{\circ}\text{F}$	ISO 3146
Maximum Service Temperature, Air	90.0 $^{\circ}\text{C}$	194 $^{\circ}\text{F}$	Short Term
	80.0 $^{\circ}\text{C}$	176 $^{\circ}\text{F}$	
	@Time 1.80e+7 sec	@Time 5000 hour	
Minimum Service Temperature, Air	-150 $^{\circ}\text{C}$	-238 $^{\circ}\text{F}$	
Glass Transition Temp, Tg	-120 $^{\circ}\text{C}$	-184 $^{\circ}\text{F}$	
Flammability, UL94	HB	HB	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	$\leq 1.00\text{e}+6$ ohm-cm	$\leq 1.00\text{e}+6$ ohm-cm	IEC 60093
Surface Resistance	$\leq 1.00\text{e}+9$ ohm	$\leq 1.00\text{e}+9$ ohm	IEC 60093

Compliance Properties	Metric	English	Comments
FDA	No	No	

Descriptive Properties	Value	Comments
Color	Black	

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

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