Plaslube® PE 5903

Techmer Polymer Modifiers - *Ultra High Molecular Weight Polyethylene*

General Information

General			
Material Status	• Commercial: Active		
Availability	• North America		
Additive	• Lubricant		
Features	• Low Friction	• Lubricated	• Wear Resistant
Appearance	• Colors Available		
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.970		ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/10.0 kg	24	g/10 min	
190°C/3.8 kg	1.7	g/10 min	
Molding Shrinkage - Flow (0.125 in)	0.030	in/in	ASTM D955
Water Absorption (24 hr)	0.070	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Break)	3100	psi	ASTM D638
Tensile Elongation (Break)	50	%	ASTM D638
Flexural Modulus	70000	psi	ASTM D790
Flexural Strength	6000	psi	ASTM D790
Coefficient of Friction			ASTM D1894
vs. Steel - Dynamic	0.080		
vs. Steel - Static	0.090		
Wear Factor	10	10^-10 in³·min/ft·lb·hr	ASTM D3702
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F, 0.125 in)	1.3	ft·lb/in	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	200	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	130	°F	ASTM D648
CLTE - Flow	5.0E-5	in/in/°F	ASTM D696
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength (Method A (Short-Time))	500	V/mil	ASTM D149
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.06 in)	HB		UL 94