

## Polymer Industries Polyslick UHMW Rod

Category : Polymer , Thermoplastic , Polyethylene (PE)

### Material Notes:

Polyslick UHMW Rod exhibits all of the durable qualities of our Polyslick UHMW Sheet making it perfect for the application where sheet stock is not suitable. The material is ideally suited for the manufacture of bushings, bearings, rollers, and augers as there is much less wasted material than if the material was made out of sheet stock. Polyslick UHMW Rod is available in up to 10 inches in diameter and is available out of stock in natural virgin and black reprocessed grades. Information provided by Polymer Industries.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Polymer-Industries-Polyslick-UHMW-Rod.php](http://www.lookpolymers.com/polymer_Polymer-Industries-Polyslick-UHMW-Rod.php)

Physical Properties	Metric	English	Comments
Density	0.930 g/cc	0.0336 lb/in <sup>3</sup>	ISO 1183
Water Absorption	<= 0.010 %	<= 0.010 %	ISO 62
Viscosity Test	3850 cm <sup>3</sup> /g	3850 cm <sup>3</sup> /g	ISO 307, 1157, 1628

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	17.0 MPa	2470 psi	ISO 527-2/1A
Elongation at Break	>= 50 %	>= 50 %	ISO 527-2/1A
Elongation at Yield	<= 20 %	<= 20 %	ISO 527-2/1A
Tensile Modulus	0.680 GPa	98.6 ksi	ISO 527-2/1A
Tensile Creep Modulus, 1 hour	430 MPa	62400 psi	ISO 899-1
Tensile Creep Modulus, 1000 hours	220 MPa	31900 psi	ISO 899-1

Thermal Properties	Metric	English	Comments
CTE, linear	200 µm/m-°C	111 µin/in-°F	ISO 11359-2
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Deflection Temperature at 0.46 MPa (66 psi)	65.0 °C	149 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	42.0 °C	108 °F	ISO 75-1/-2
Vicat Softening Point	80.0 °C	176 °F	ISO 306
Flammability, UL94	HB	HB	
	@Thickness 1.60 mm	@Thickness 0.0630 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	$\geq 1.00 \times 10^{12}$ ohm-cm	$\geq 1.00 \times 10^{12}$ ohm-cm	IEC 60093
Surface Resistance	$\geq 1.00 \times 10^{12}$ ohm	$\geq 1.00 \times 10^{12}$ ohm	IEC 60093
Dielectric Constant	2.1	2.1	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Constant	3.0	3.0	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Dielectric Strength	45.0 kV/mm	1140 kV/in	IEC 60243-1
Dissipation Factor	0.00029	0.00029	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dissipation Factor	0.0010	0.0010	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Comparative Tracking Index	600 V	600 V	IEC 60112

## Contact Songhan Plastic Technology Co.,Ltd.

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