

## Okulen® 1000 PE-UHMW, Natural

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

### Material Notes:

OKULEN® 1000 is an ultra high molecular low pressure polyethylene with a molecular weight of < 3.5 g/mol. It has great wear resistance, high impact strength, and excellent sliding properties ideal for applications like machine construction, plant construction, and conveyor technology.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Okulen-1000-PE-UHMW-Natural.php](http://www.lookpolymers.com/polymer_Okulen-1000-PE-UHMW-Natural.php)

Physical Properties	Metric	English	Comments
Density	0.930 g/cc	0.0336 lb/in <sup>3</sup>	ISO 1183-A
Water Absorption	<= 0.10 %	<= 0.10 %	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	63 @Thickness 5.00 mm	63 @Thickness 0.197 in	3 s value; plate; ISO 868
Tensile Strength, Yield	20.0 MPa	2900 psi	50 mm/min; ISO/R 527
Elongation at Break	>= 50 %	>= 50 %	50 mm/min; ISO/R 527
Creep Strength	10.0 MPa @Temperature 20.0 °C, Time 605000 sec	1450 psi @Temperature 68.0 °F, Time 168 hour	
Charpy Impact Unnotched	2.10 J/cm <sup>2</sup>	9.99 ft-lb/in <sup>2</sup>	ISO 11542-2
Coefficient of Friction, Dynamic	0.13 @Pressure 2.00 MPa	0.13 @Pressure 290 psi	PE-metal, V = 10 m/min; ASTM D1894
Coefficient of Friction, Static	0.18 @Pressure 2.00 MPa	0.18 @Pressure 290 psi	PE-metal, V = 10 m/min; ASTM D1894
Abrasion	100	100	Slurry-Test rel to GUR 4120 = 100%; DIN 58836

Thermal Properties	Metric	English	Comments
CTE, linear	200 µm/m-°C	111 µin/in-°F	DIN 53752
Melting Point	133 - 135 °C	271 - 275 °F	DSC ISO 3146
Maximum Service Temperature, Air	80.0 °C	176 °F	

Electrical Properties	Metric	English	Comments
Volume Resistivity	$\geq 1.00 \times 10^{14}$ ohm-cm	$\geq 1.00 \times 10^{14}$ ohm-cm	Teil 30; IEC 600093 / VDE 0303
Surface Resistance	$\geq 1.00 \times 10^{13}$ ohm	$\geq 1.00 \times 10^{13}$ ohm	Teil 30; IEC 60093 / VDE 0303

Descriptive Properties	Value	Comments
FDA Approved	Yes	

## Contact Songhan Plastic Technology Co.,Ltd.

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