

## Manifattura Cattaneo PE UMW Polyethylene

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

### Material Notes:

Manifattura Cattaneo products are available in semi-finished forms such as bars, profiles, sheets and plates. Information provided by Manifattura Cattaneo s.p.a.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Manifattura-Cattaneo-PE-UMW-Polyethylene.php](http://www.lookpolymers.com/polymer_Manifattura-Cattaneo-PE-UMW-Polyethylene.php)

Physical Properties	Metric	English	Comments
Density	0.930 g/cc	0.0336 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption at Equilibrium	0.020 % @Temperature 23.0 °C	0.020 % @Temperature 73.4 °F	50% RH; ISO 62
Water Absorption at Saturation	0.20 %	0.20 %	ISO 62

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	63	63	DIN 53505
Tensile Strength, Yield	20.0 MPa	2900 psi	ISO 527
Elongation at Break	>= 50 %	>= 50 %	ISO 527
Elongation at Yield	15 %	15 %	ISO 527
Tensile Modulus	0.900 GPa	131 ksi	ISO 527
Compressive Yield Strength	6.00 MPa @Strain 1.00 %	870 psi @Strain 1.00 %	ISO 604
Poissons Ratio	0.42	0.42	
Charpy Impact Unnotched	NB	NB	ISO 179
Charpy Impact, Notched	9.00 J/cm <sup>2</sup>	42.8 ft-lb/in <sup>2</sup>	ISO 179
Coefficient of Friction, Dynamic	0.25	0.25	on polished steel; MPC Test
Coefficient of Friction, Static	0.16	0.16	on polished steel; MPC Test

Thermal Properties	Metric	English	Comments
CTE, linear	180 µm/m-°C	100 µin/in-°F	ASTM D696
Thermal Conductivity	0.400 W/m-K	2.78 BTU-in/hr-ft <sup>2</sup> - °F	DOM 52612

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	42.0 Å°C	108 Å°F	ISO 75
Vicat Softening Point	80.0 Å°C	176 Å°F	ISO 306
Minimum Service Temperature, Air	-150 Å°C	-238 Å°F	
Flammability, UL94	HB	HB	

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+18 ohm-cm	>= 1.00e+18 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+13 ohm	>= 1.00e+13 ohm	IEC 60094
Dielectric Constant	3.0 @Frequency 1.00e+6 Hz	3.0 @Frequency 1.00e+6 Hz	IEC 60250
Dielectric Strength	45.0 kV/mm @Thickness 2.00 mm	1140 kV/in @Thickness 0.0787 in	IEC 60243
Dielectric Loss Index	0.0010 @Frequency 1.00e+6 Hz	0.0010 @Frequency 1.00e+6 Hz	IEC 60250

Compliance Properties	Metric	English	Comments
FDA	Yes	Yes	

Descriptive Properties	Value	Comments
Color	Black	
	Green	
	White	
UV Resistance	N	

## Contact Songhan Plastic Technology Co.,Ltd.

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