

## Manifattura Cattaneo PA 6 Nylon

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, Unreinforced

### 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-PA-6-Nylon.php](http://www.lookpolymers.com/polymer_Manifattura-Cattaneo-PA-6-Nylon.php)

Physical Properties	Metric	English	Comments
Density	1.14 g/cc	0.0412 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption at Equilibrium	3.0 % @Temperature 23.0 Â°C	3.0 % @Temperature 73.4 Â°F	50% RH; ISO 62
Water Absorption at Saturation	9.5 %	9.5 %	ISO 62

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	85	85	ISO 2039-2
Tensile Strength, Yield	45.0 MPa	6530 psi	Conditioned 50% RH; ISO 527
	90.0 MPa	13100 psi	Dried; ISO 527
Elongation at Break	>= 50 %	>= 50 %	Conditioned 50% RH; ISO 527
Elongation at Yield	4.5 %	4.5 %	Dried; ISO 527
	20 %	20 %	Conditioned 50% RH; ISO 527
Tensile Modulus	1.00 GPa	145 ksi	Conditioned 50% RH; ISO 527
	3.00 GPa	435 ksi	Dried; ISO 527
Compressive Yield Strength	24.0 MPa @Strain 1.00 %	3480 psi @Strain 1.00 %	ISO 604
Poissons Ratio	0.38	0.38	Dried
	0.45	0.45	Conditioned 50% RH
Charpy Impact Unnotched	NB	NB	ISO 179
Charpy Impact, Notched	0.900 J/cm <sup>2</sup>	4.28 ft-lb/in <sup>2</sup>	Dried; ISO 179
	NB	NB	Conditioned 50% RH; ISO 179
Coefficient of Friction, Dynamic			on polished steel; MPC Test

Mechanical Properties	Metric	English	Comments
Coefficient of Friction, Static	0.22	0.22	on polished steel; MPC Test
K Factor (Wear Factor)	8.5	8.5	Åµm/s. PV = 0.1 MPa-m/s; max P = 24 MPa; MPC Test
Limiting Pressure Velocity	0.0700 MPa-m/sec	2000 psi-ft/min	without lubrication; MPC Test

Thermal Properties	Metric	English	Comments
CTE, linear	85.0 Åµm/m-Å°C	47.2 Åµin/in-Å°F	ASTM D696
	@Temperature 23.0 - 100 Å°C	@Temperature 73.4 - 212 Å°F	
Thermal Conductivity	0.280 W/m-K	1.94 BTU-in/hr-Å²-Å°F	DOM 52612
Maximum Service Temperature, Air	85.0 Å°C	185 Å°F	
Deflection Temperature at 0.46 MPa (66 psi)	160 Å°C	320 Å°F	Dried; ISO 75
	180 Å°C	356 Å°F	Conditioned 50% RH; ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	70.0 Å°C	158 Å°F	Dried; ISO 75
	90.0 Å°C	194 Å°F	Conditioned 50% RH; ISO 75
Minimum Service Temperature, Air	-40.0 Å°C	-40.0 Å°F	
Oxygen Index	25 %	25 %	ISO 4589

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+14 ohm-cm	>= 1.00e+14 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+12 ohm	>= 1.00e+12 ohm	IEC 60094
Dielectric Constant	3.8	3.8	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	16.0 kV/mm	406 kV/in	IEC 60243
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Dielectric Loss Index	0.060	0.060	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	

Compliance Properties	Metric	English	Comments
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<small>FDA</small> Compliance Properties	<small>Yes</small> Metric	<small>Yes</small> English	Comments
<b>Descriptive Properties</b>			
Color		Black	
		White	
UV Resistance		N	

## Contact Songhan Plastic Technology Co.,Ltd.

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