Murtfeldt Murylon® A Nylon 66

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, Impact Grade

Material Notes:

This material combines the excellent properties of the Murylon® range with additional high tensile and compressive strength, increased wear resistance, and a lower level of moisture absorption than Murylon® B.Special Properties:• High wear resistance• Improved tensile and compressive strength• High temperature resistance• Extremely good fatigue strength• Low cold flow characteristics• Approved for use in the food industry (EU and FDAInformation provided by Murtfeldt Kunststoffe GmbH & Co. KG.

Order this product through the following link:
http://www.lookpolymers.com/polymer_Murtfeldt-Murylon-A-Nylon-66.php

Physical Properties	Metric	English	Comments
Density	1.14 g/cc	0.0412 lb/in³	ISO 1183-1
Moisture Absorption at Equilibrium	2.4 % @Temperature 23.0 °C	2.4 % @Temperature 73.4 °F	50% RH
Water Absorption at Saturation	8.0 % @Temperature 23.0 °C	8.0 % @Temperature 73.4 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	88	88	dry; ISO 2039-2
Hardness, Shore D	81	81	DIN 53505
Ball Indentation Hardness	160 MPa	23200 psi	dry; ISO 2039-1
Tensile Strength, Yield	55.0 MPa	7980 psi	50% RH; ISO 527-1
	90.0 MPa	13100 psi	dry; ISO 527-1
Elongation at Break	50 %	50 %	dry; ISO 527-1
	>= 100 %	>= 100 %	50% RH; ISO 527-1
Modulus of Elasticity	1.70 GPa	247 ksi	50% RH
	3.55 GPa	515 ksi	dry
Compressive Yield Strength	32.0 MPa @Strain 1.00 %	4640 psi @Strain 1.00 %	dry; ISO 604
	62.0 MPa @Strain 2.00 %	8990 psi @Strain 2.00 %	dry; ISO 604
	100 MPa	14500 psi	

Mechanical Properties	Metric	English	Comments
	@Strain 5.00 %	@Strain 5.00 %	dry; ISO 604
Charpy Impact Unnotched	NB	NB	dry; ISO 179-1/1eU
	NB	NB	ISO 179
Charpy Impact, Notched	0.450 J/cm²	2.14 ft-lb/in²	dry; ISO 179-1/1eA
Coefficient of Friction, Dynamic	0.30	0.30	
Sand Slurry	0.10	0.10	µm/km

Thermal Properties	Metric	English	Comments
CTE, linear	80.0 µm/m-°C @Temperature 23.0 - 60.0 °C	44.4 µin/in-°F @Temperature 73.4 - 140 °F	
	95.0 µm/m-°C @Temperature 23.0 - 100 °C	52.8 µin/in-°F @Temperature 73.4 - 212 °F	
Thermal Conductivity	0.280 W/m-K	1.94 BTU-in/hr-ft²-°F	
Melting Point	260 °C	500 °F	ISO 11357-1
Maximum Service Temperature, Air	80.0 °C @Time 7.20e+7 sec	176 °F @Time 20000 hour	
	95.0 °C @Time 1.80e+7 sec	203 °F @Time 5000 hour	
	180 °C @Time <=86400 sec	356 °F @Time <=24.0 hour	
Minimum Service Temperature, Air	-30.0 °C	-22.0 °F	
Glass Transition Temp, Tg	60.0 °C	140 °F	ISO 11357-1
Flammability, UL94	HB	HB	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	>= 1.00e+12 ohm-cm	>= 1.00e+12 ohm-cm	50% RH; IEC 60093
	>= 1.00e+14 ohm-cm	>= 1.00e+14 ohm-cm	dry; IEC 60093
Surface Resistance	>= 1.00e+12 ohm	>= 1.00e+12 ohm	50% RH; IEC 60093
	>= 1.00e+13 ohm	>= 1.00e+13 ohm	dry; IEC 60093

Electrical Properties	Metric	English	Comments
Dielectric Constant	3.3 @Frequency 1.00e+6 Hz	3.3 @Frequency 1.00e+6 Hz	dry; IEC 60250
	3.8 @Frequency 100 Hz	3.8 @Frequency 100 Hz	dry; IEC 60250
	3.8 @Frequency 1.00e+6 Hz	3.8 @Frequency 1.00e+6 Hz	50% RH; IEC 60250
	7.4 @Frequency 100 Hz	7.4 @Frequency 100 Hz	50% RH; IEC 60250
Dielectric Strength	18.0 kV/mm	457 kV/in	50% RH; IEC 60243-1
	27.0 kV/mm	686 kV/in	dry; IEC 60243-1
Dielectric Loss Index	0.013 @Frequency 100 Hz	0.013 @Frequency 100 Hz	dry; IEC 60250
	0.020 @Frequency 1.00e+6 Hz	0.020 @Frequency 1.00e+6 Hz	dry; IEC 60250
	0.060 @Frequency 1.00e+6 Hz	0.060 @Frequency 1.00e+6 Hz	50% RH; IEC 60250
	0.13 @Frequency 100 Hz	0.13 @Frequency 100 Hz	50% RH; IEC 60250

Compliance Properties	Metric	English	Comments
European Food 1935/2004	Yes	Yes	
FDA	Yes	Yes	

Descriptive Properties	Value	Comments
Color	Natural/Black	

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