

Quadrant EPP Nylatron® MD PA 6 + metal detectable additive, extruded (ISO Data)

Category : Polymer , Thermoplastic , Nylon , Nylon 6

Material Notes:

Metal detectable 6SA grade High wear and fatigue resistance Lower moisture absorption than standard PA6 Metal and visual detection by blue colour Detection by x-ray also possible Continuous use temperature up to 85 °C (185 °F)

Order this product through the following link:

http://www.lookpolymers.com/polymer_Quadrant-EPP-Nylatron-MD-PA-6-metal-detectable-additive-extruded-ISO-Data.php

Physical Properties	Metric	English	Comments
Density	1.21 g/cc	0.0437 lb/in ³	ISO 1183-1
Moisture Absorption at Equilibrium	2.5 %	2.5 %	50% RH
Water Absorption at Saturation	6.9 %	6.9 %	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	85	85	ISO 2039-2
Ball Indentation Hardness	170 MPa	24700 psi	ISO 2039-1
Tensile Strength	87.0 MPa	12600 psi	at Yield; ISO 527-1/-2
Elongation at Break	25 %	25 %	ISO 527-1/-2
Elongation at Yield	4.0 %	4.0 %	ISO 527-1/-2
Tensile Modulus	4.00 GPa	580 ksi	ISO 527-1/-2
Compressive Strength	35.0 MPa	5080 psi	ISO 604
	@Strain 1 %	@Strain 1 %	
	67.0 MPa	9720 psi	
	@Strain 2 %	@Strain 2 %	ISO 604
	92.0 MPa	13300 psi	ISO 604
	@Strain 5 %	@Strain 5 %	
Charpy Impact Unnotched	8.00 J/cm ²	38.1 ft-lb/in ²	ISO 179-1/1eU
Charpy Impact, Notched	0.300 J/cm ²	1.43 ft-lb/in ²	ISO 179-1/1eA
Coefficient of Friction, Dynamic	0.40 - 0.60	0.40 - 0.60	

Thermal Properties	Metric	English	Comments
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Thermal Properties	100 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ Metric	55.6 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$ English	Comments
CTE, linear	@ Temperature 23.0 - 100 $^\circ\text{C}$	@ Temperature 73.4 - 212 $^\circ\text{F}$	
Thermal Conductivity	0.280 W/m-K	1.94 BTU-in/hr-ft ² - $^\circ\text{F}$	
Melting Point	220 $^\circ\text{C}$	428 $^\circ\text{F}$	DSC, 10 $^\circ\text{C}/\text{min}$.; ISO 11357-1/-3
Maximum Service Temperature, Air	70.0 $^\circ\text{C}$	158 $^\circ\text{F}$	Continuous; 20,000 h
	85.0 $^\circ\text{C}$	185 $^\circ\text{F}$	Continuous; 5,000 h
Deflection Temperature at 1.8 MPa (264 psi)	85.0 $^\circ\text{C}$	185 $^\circ\text{F}$	ISO 75-1/-2
Flammability, UL94	HB	HB	
Oxygen Index	25 %	25 %	ISO 4589-1/-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	$\geq 1.0\text{e}+12$ ohm-cm	$\geq 1.0\text{e}+12$ ohm-cm	IEC 60093
Surface Resistivity per Square	$\geq 1.0\text{e}+11$ ohm	$\geq 1.0\text{e}+11$ ohm	IEC 60093

Compliance Properties	Metric	English	Comments
3A-Dairy	No	No	
European Food 1935/2004	Yes	Yes	
FDA	Yes	Yes	
USP Class VI	No	No	

Chemical Resistance Properties	Metric	English	Comments
Acids, Strong (pH 1-3)	Unacceptable	Unacceptable	
Acids, Weak	Limited	Limited	
Alcohols	Limited	Limited	
Alkalies, Strong (pH 11-14)	Unacceptable	Unacceptable	
Alkalies, Weak	Limited	Limited	
Chlorinated Solvents	Limited	Limited	
Continuous Sunlight	Limited	Limited	
Hot Water / Steam	Limited	Limited	

Hydrocarbons - Aliphatic Chemical Resistance Properties	Acceptable Metric	Acceptable English	Comments
Hydrocarbons - Aromatic	Acceptable	Acceptable	
Inorganic Salt Solutions	Acceptable	Acceptable	
Ketones, Esters	Acceptable	Acceptable	

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