

Schwartz Technical Plastics LAMIGAMIDÂ® 100 Polyamide 6, Extruded, Conditioned

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, Extruded

Material Notes:

Application: machine parts under 80 mm diameter, hammer-heads, cup-shaped bearing shells
Information provided by Schwartz Technical Plastics GmbH

Order this product through the following link:

http://www.lookpolymers.com/polymer_Schwartz-Technical-Plastics-LAMIGAMID-100-Polyamide-6-Extruded-Conditioned.php

Physical Properties	Metric	English	Comments
Density	1.14 g/cc	0.0412 lb/inÂ³	ISO R 1183
Moisture Absorption at Equilibrium	2.5 - 3.0 %	2.5 - 3.0 %	DIN 53473
Water Absorption at Saturation	8.5 - 10 % @Temperature 20.0 Â°C	8.5 - 10 % @Temperature 68.0 Â°F	ISO R 62

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	50.0 MPa	7250 psi	Hc 30; ISO 2039; partially
Tensile Strength, Yield	42.0 MPa	6090 psi	ISO-DIS 527
Creep Strength	>= 7.00 MPa	>= 1020 psi	1% elongation, 1000 h; DIN 53444
	>= 10.5 MPa	>= 1520 psi	2% elongation, 1000 h; DIN 53444
Tensile Modulus	1.80 GPa	261 ksi	DIN 53457
Flexural Strength	40.0 MPa	5800 psi	DIN 54352
Flexural Modulus	1.40 GPa	203 ksi	DIN 53457
Izod Impact, Notched (ISO)	NB	NB	DIN 53453
Izod Impact Resistance	NB	NB	swinging hammer 0,1 DIN 51222; DIN 53453
Coefficient of Friction	0.080	0.080	With lubrication
Coefficient of Friction, Dynamic	0.42	0.42	no lube; Steel 2162, Rvst=2E-6m, p=0.05 Mpa, v=0.6 m/s, t=40Â°C
Tear Strength Test	>= 1.6	>= 1.6	ISO-DIS 527
K Factor (Wear Factor)	2.3e-10	2.3e-10	

Thermal Properties	Metric	English	Comments
CTE, linear	70.0 - 100 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	38.9 - 55.6 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	DIN 53752
	@Temperature 20.0 - 100 $\text{Å}^\circ\text{C}$	@Temperature 68.0 - 212 $\text{Å}^\circ\text{F}$	
Specific Heat Capacity	1.67 J/g $\cdot\text{Å}^\circ\text{C}$	0.399 BTU/lb $\cdot\text{Å}^\circ\text{F}$	
Thermal Conductivity	0.230 W/m-K	1.60 BTU-in/hr-ft $\text{Å}^2\cdot\text{Å}^\circ\text{F}$	DIN 52612
Melting Point	220 $\text{Å}^\circ\text{C}$	428 $\text{Å}^\circ\text{F}$	ISO R 1218
Maximum Service Temperature, Air	100 $\text{Å}^\circ\text{C}$	212 $\text{Å}^\circ\text{F}$	Continuous
	160 $\text{Å}^\circ\text{C}$	320 $\text{Å}^\circ\text{F}$	Intermittent
Minimum Service Temperature, Air	-40.0 $\text{Å}^\circ\text{C}$	-40.0 $\text{Å}^\circ\text{F}$	Continuous

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+12 ohm-cm	1.00e+12 ohm-cm	DIN 53482
Surface Resistance	1.00e+10 ohm	1.00e+10 ohm	DIN 53482
Dielectric Constant	7.0	7.0	DIN 53483
Dielectric Strength	20.0 kV/mm	508 kV/in	DIN 53481
Dielectric Loss Index	0.30	0.30	DIN 53483

Descriptive Properties	Value	Comments
Creepage/leakage Resistance	KA3b	DIN 53480

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