

## Schwartz Technical Plastics LAMIGAMIDÂ® 314 Cast Polyamide 6, MoS2 Filled, Heat Stabilized, Dry

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, Heat Stabilized , Nylon 6, MoS2 Filled

### Material Notes:

Application: sheaves, wheels, gear-rods, gears, sliding liners  
Information provided by Schwartz Technical Plastics GmbH

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Schwartz-Technical-Plastics-LAMIGAMID-314-Cast-Polyamide-6-MoS2-Filled-Heat-Stabilized-Dry.php](http://www.lookpolymers.com/polymer_Schwartz-Technical-Plastics-LAMIGAMID-314-Cast-Polyamide-6-MoS2-Filled-Heat-Stabilized-Dry.php)

Physical Properties	Metric	English	Comments
Density	1.16 g/cc	0.0419 lb/inÂ³	ISO R 1183
Moisture Absorption at Equilibrium	2.2 %	2.2 %	DIN 53473
Water Absorption at Saturation	7.0 % @Temperature 20.0 Â°C	7.0 % @Temperature 68.0 Â°F	ISO R 62

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	160 MPa	23200 psi	Hc 30; ISO 2039; partially
Tensile Strength, Yield	80.0 MPa	11600 psi	ISO-DIS 527
Creep Strength	>= 15.0 MPa	>= 2180 psi	1% elongation, 1000 h; DIN 53444
	>= 20.0 MPa	>= 2900 psi	2% elongation, 1000 h; DIN 53444
Tensile Modulus	3.50 GPa	508 ksi	DIN 53457
Flexural Strength	130 MPa	18900 psi	DIN 54352
Flexural Modulus	3.40 GPa	493 ksi	DIN 53457
Compressive Strength	42.0 MPa	6090 psi	5% pressing; EN ISO 604
	68.0 MPa	9860 psi	10% pressing; EN ISO 604
	95.0 MPa	13800 psi	20% pressing; EN ISO 604
Izod Impact, Notched (ISO)	>= 2.70 kJ/mÂ²	>= 1.28 ft-lb/inÂ²	ISO 180-1A
Izod Impact Resistance	NB	NB	swinging hammer 0,1 DIN 51222; DIN 53453
Coefficient of Friction	0.040	0.040	With lubrication
Coefficient of Friction, Dynamic	0.31	0.31	no lube; Steel 2162, Rvst=2E-6m, p=0.05 Mpa, v=0.6 m/s, t=40Â°C

<b>Tear Strength Test</b> Mechanical Properties	<b>≧ 0.20</b> Metric	<b>≧ 0.20</b> English	<b>ISO-DIS 527</b> Comments
K Factor (Wear Factor)	1.0e-10	1.0e-10	

<b>Thermal Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
CTE, linear	70.0 - 80.0 $\mu\text{m/m}\cdot\text{Å}^\circ\text{C}$ @Temperature 20.0 - 100 $\text{Å}^\circ\text{C}$	38.9 - 44.4 $\mu\text{in/in}\cdot\text{Å}^\circ\text{F}$ @Temperature 68.0 - 212 $\text{Å}^\circ\text{F}$	DIN 53752
Specific Heat Capacity	1.67 J/g- $\text{Å}^\circ\text{C}$	0.399 BTU/lb- $\text{Å}^\circ\text{F}$	
Thermal Conductivity	0.250 W/m-K	1.74 BTU-in/hr-ft $\text{Å}^2$ - $\text{Å}^\circ\text{F}$	DIN 52612
Melting Point	220 $\text{Å}^\circ\text{C}$	428 $\text{Å}^\circ\text{F}$	ISO R 1218
Maximum Service Temperature, Air	120 $\text{Å}^\circ\text{C}$	248 $\text{Å}^\circ\text{F}$	Continuous
	180 $\text{Å}^\circ\text{C}$	356 $\text{Å}^\circ\text{F}$	Intermittent
Deflection Temperature at 0.46 MPa (66 psi)	210 $\text{Å}^\circ\text{C}$	410 $\text{Å}^\circ\text{F}$	V-notch; ISO R 75
Deflection Temperature at 1.8 MPa (264 psi)	120 $\text{Å}^\circ\text{C}$	248 $\text{Å}^\circ\text{F}$	V-notch; ISO R 75
Minimum Service Temperature, Air	-40.0 $\text{Å}^\circ\text{C}$	-40.0 $\text{Å}^\circ\text{F}$	Continuous

<b>Electrical Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	DIN 53482
Surface Resistance	1.00e+12 ohm	1.00e+12 ohm	DIN 53482
Dielectric Constant	3.7	3.7	DIN 53483
Dielectric Strength	50.0 kV/mm	1270 kV/in	DIN 53481
Dielectric Loss Index	0.030	0.030	DIN 53483

<b>Descriptive Properties</b>	<b>Value</b>	<b>Comments</b>
Creepage/leakage Resistance	KA3c	DIN 53480

## Contact Songhan Plastic Technology Co.,Ltd.

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