

## Hippe PA 11 Nylon 11

Category : Polymer , Thermoplastic , Nylon , Nylon 11 , Nylon 11, Unreinforced

### Material Notes:

Water armatures, bearing under water, seals, housings, fans, insulated parts, parts for textile machines and household units. Toother wheels, sliding components and guides. Very low water absorption. Information provided by Hippe.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Hippe-PA-11-Nylon-11.php](http://www.lookpolymers.com/polymer_Hippe-PA-11-Nylon-11.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.04 g/cc	1.04 g/cc	DIN 53 479
Moisture Absorption at Equilibrium	0.90 %	0.90 %	Absorption of humidity in standard operating environment; DIN 53 715
Water Absorption at Saturation	1.9 %	1.9 %	DIN 53 495

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	90.0 MPa	13100 psi	DIN 53 456
	@Time 30.0 sec	@Time 0.00833 hour	
Tensile Strength	42.0 MPa	6090 psi	cond.; DIN 53 455
	47.0 MPa	6820 psi	dry; DIN 53 455
Elongation at Break	230 %	230 %	dry; DIN 53 455
	280 %	280 %	cond.; DIN 53 455
Tensile Modulus	1.80 GPa	261 ksi	DIN 53 457
Charpy Impact, Notched	NB	NB	DIN 53 453
Coefficient of Friction, Dynamic	0.32 - 0.38	0.32 - 0.38	Against steel, p=0.05 N/mm <sup>2</sup> , v=0.6 m/s, hardened and ground
Abrasion	0.80	0.80	µm/km; Against steel, p=0.05 N/mm <sup>2</sup> , v=0.6 m/s, hardened and ground

Thermal Properties	Metric	English	Comments
CTE, linear	100 µm/m-°C	55.6 µin/in-°F	
Specific Heat Capacity	2.10 J/g-°C	0.502 BTU/lb-°F	
Thermal Conductivity	0.230 W/m-K	1.60 BTU-in/hr-ft <sup>2</sup> -°F	
Melting Point	183 °C	361 °F	DIN 53 736
Maximum Service Temperature, Air			Continuous use

Thermal Properties	80.0 °C Metric	176 °F English	Comments
	150 °C	302 °F	Short Periods
Deflection Temperature at 0.46 MPa (66 psi)	150 °C	302 °F	ISO-R 75 Method B
Deflection Temperature at 1.8 MPa (264 psi)	55.0 °C	131 °F	ISO-R 75 Method A
Glass Transition Temp, Tg	43.0 °C	109 °F	dynamic; DIN 53 736
Flammability, UL94	V-2	V-2	

Electrical Properties	Metric	English	Comments
Volume Resistivity	2.00e+15 ohm-cm	2.00e+15 ohm-cm	DIN 53 482, VDE 0303, Part 3
Surface Resistance	1.00e+14 ohm	1.00e+14 ohm	DIN 53 482
Dielectric Constant	3.6 @Frequency 1.00e+6 Hz	3.6 @Frequency 1.00e+6 Hz	DIN 53 483, IEC-250
Dielectric Strength	40.0 kV/mm	1020 kV/in	Breakdown; DIN 53 481, IEC-243, VDE 0303 Part 1
Dielectric Loss Index	0.040 @Frequency 1.00e+6 Hz	0.040 @Frequency 1.00e+6 Hz	DIN 53 483, IEC-250

Descriptive Properties	Value	Comments
Color	natural	
Creep Resistance	Grade CTI 600	DIN 53 480, IEC-112, VDE 0303 Part 1
Resistance to hot water, suds	resistant	

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China