

## Nilit Polynil® P50FL Externally Lubricated, Lightly Nucleated Nylon 66

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, Nucleated

### Material Notes:

Description: Polynil P50FL is a general purpose injection molding grade that is widely used for gears, bearings, fasteners, clips. Key characteristics: Excellent flow Good toughness Good overall mechanical performance High elongation UL 94 V2 listed at 0.75 mm Information provided by NILIT.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Nilit-Polynil-P50FL-Externally-Lubricated-Lightly-Nucleated-Nylon-66.php](http://www.lookpolymers.com/polymer_Nilit-Polynil-P50FL-Externally-Lubricated-Lightly-Nucleated-Nylon-66.php)

Physical Properties	Metric	English	Comments
Density	1.14 g/cc	0.0412 lb/in <sup>3</sup>	ASTM D792
Water Absorption	1.5 %	1.5 %	24h in H <sub>2</sub> O; sim. ISO 62
Water Absorption at Saturation	8.5 %	8.5 %	sim. ISO 62
Loss On Ignition	28 %	28 %	ASTM D2863
Viscosity Measurement	50	50	relative viscosity (formic acid); ASTM D789
Linear Mold Shrinkage, Flow	0.011 cm/cm	0.011 in/in	Nilit

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	85.15 MPa	12350 psi	ASTM D638
Elongation at Break	28 %	28 %	ASTM D638
Flexural Strength	130 MPa	18900 psi	ASTM D790
	30.0 MPa @Temperature 90.0 °C	4350 psi @Temperature 194 °F	ASTM D790
Flexural Modulus	3.00 GPa	435 ksi	ASTM D790
Izod Impact, Notched (ISO)	5.04 kJ/m <sup>2</sup>	2.40 ft-lb/in <sup>2</sup>	ASTM D256
	3.99 kJ/m <sup>2</sup> @Temperature -30.0 °C	1.90 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ASTM D256
Charpy Impact Unnotched	NB	NB	ISO 179
Charpy Impact, Notched	0.500 J/cm <sup>2</sup>	2.38 ft-lb/in <sup>2</sup>	ISO 179
	0.380 J/cm <sup>2</sup> @Temperature -30.0 °C	1.81 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	228 °C	442 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	85.0 °C	185 °F	ASTM D648
Vicat Softening Point	240 °C	464 °F	49 N; ASTM D1525
	257 °C	495 °F	9.8 N; ASTM D1525
Flammability, UL94	V-2	V-2	
	@Thickness 1.60 mm	@Thickness 0.0630 in	
	V-2	V-2	
	@Thickness 0.800 mm	@Thickness 0.0315 in	

Electrical Properties	Metric	English	Comments
Dielectric Strength	18.0 kV/mm	457 kV/in	ASTM D149
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Comparative Tracking Index	>= 600 V	>= 600 V	UL 746

Descriptive Properties	Value	Comments
Heat Resistance - Ball Test	OK	at 125°C, IEC 309
	OK	at 165°C, IEC 309

## 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