

## Nilit Nilitop BT N Unfilled, Nucleated PBT

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT) , Polybutylene Terephthalate (PBT), Unreinforced, Molded

### Material Notes:

Description: Nilitop BT N is an unfilled, nucleated PBT that has excellent cycle times. Key characteristics: Good overall mechanical performance Low moisture absorption Excellent UV resistance Excellent surface finish Good thermal performance Information provided by NILIT.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Nilit-Nilitop-BT-N-Unfilled-Nucleated-PBT.php](http://www.lookpolymers.com/polymer_Nilit-Nilitop-BT-N-Unfilled-Nucleated-PBT.php)

Physical Properties	Metric	English	Comments
Density	1.31 g/cc	0.0473 lb/in <sup>3</sup>	ASTM D792, ISO 1183
Water Absorption	0.20 %	0.20 %	23°C, 24h in H <sub>2</sub> O; sim. ISO 62
Water Absorption at Saturation	0.50 %	0.50 %	sim. ISO 62
Linear Mold Shrinkage, Flow	0.018 cm/cm	0.018 in/in	Euronil
Linear Mold Shrinkage, Transverse	0.018 cm/cm	0.018 in/in	Euronil

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	55.0 MPa	7980 psi	ISO 527, ASTM D638
Elongation at Break	35 %	35 %	ISO 527, ASTM D638
Elongation at Yield	4.0 %	4.0 %	ISO 527, ASTM D638
Flexural Yield Strength	85.0 MPa	12300 psi	ISO 178, ASTM D790
	25.0 MPa	3630 psi	ISO 178, ASTM D790
	@Temperature 90.0 °C	@Temperature 194 °F	
Flexural Modulus	2.20 GPa	319 ksi	ISO 178, ASTM D790
	0.500 GPa	72.5 ksi	ISO 178, ASTM D790
	@Temperature 90.0 °C	@Temperature 194 °F	
Izod Impact, Notched (ISO)	3.00 kJ/m <sup>2</sup>	1.43 ft-lb/in <sup>2</sup>	ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	5.00 kJ/m <sup>2</sup>	2.38 ft-lb/in <sup>2</sup>	ISO 180/1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact Unnotched	>= 25.0 J/cm <sup>2</sup>	>= 119 ft-lb/in <sup>2</sup>	ISO 179

Mechanical Properties	$\geq 4.00 \text{ J/cm}^2$ Metric	$\geq 19.0 \text{ ft-lb/in}^2$ English	Comments
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	0.600 J/cm <sup>2</sup>	2.86 ft-lb/in <sup>2</sup>	ISO 179
	0.400 J/cm <sup>2</sup>	1.90 ft-lb/in <sup>2</sup>	ISO 179
	@Temperature -30.0 °C	@Temperature -22.0 °F	

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	130 °C	266 °F	20,000 hr; IEC 216
Deflection Temperature at 0.46 MPa (66 psi)	182 °C	360 °F	ISO 75, ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	65.0 °C	149 °F	ISO 75, ASTM D648
Vicat Softening Point	191 °C	376 °F	49 N; ISO 306, ASTM D1525
	205 °C	401 °F	9.8 N; ISO 306, ASTM D1525
Flammability, UL94	HB	HB	
	@Thickness 0.800 mm	@Thickness 0.0315 in	
	HB	HB	
	@Thickness 3.20 mm	@Thickness 0.126 in	
Oxygen Index	22 %	22 %	ASTM D2863
Glow Wire Test	850 °C	1560 °F	Glow Wire Flammability Index; IEC 694-2-12
	@Thickness 3.20 mm	@Thickness 0.126 in	
	850 °C	1560 °F	Glow Wire Flammability Index; IEC 694-2-12
	@Thickness 0.800 mm	@Thickness 0.0315 in	

Electrical Properties	Metric	English	Comments
Dielectric Strength	19.0 kV/mm	483 kV/in	ASTM D149
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Comparative Tracking Index	350 V	350 V	Sol. B; IEC 112, UL 746A
	@Thickness 3.20 mm	@Thickness 0.126 in	
	600 V	600 V	Sol. A; IEC 112, UL 746A
	@Thickness 3.20 mm	@Thickness 0.126 in	

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

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## Contact Songhan Plastic Technology Co.,Ltd.

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