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INFORMATION**

Going Green



 ENGINEERING POLYMER SPECIALISTS
PolymerTechnology & Services, LLC

PTS Trimid® N66-S100HL-BK High Impact Heat Stabilized Nylon 6/6

Categories: [Polymer](#); [Thermoplastic](#); [Nylon](#); [Nylon 66](#); [Nylon 66, Impact Grade](#)

Material Notes: Information provided by Polymer Technology and Services, LLC (PTS).

Key Words: Polyamide 66; PA66

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Physical Properties	Metric	English	Comments
Density	1.08 g/cc	0.0390 lb/in ³	ASTM D792
Water Absorption	1.20 %	1.20 %	ASTM D570
Linear Mold Shrinkage	0.0180 cm/cm	0.0180 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	44.8 MPa	6500 psi	ASTM D638
Tensile Strength, Yield	46.9 MPa	6800 psi	ASTM D638
Elongation at Break	100 %	100 %	ASTM D638
Flexural Modulus	1.79 GPa	260 ksi	ASTM D790
Flexural Yield Strength	65.5 MPa	9500 psi	ASTM D790
Izod Impact, Notched	8.54 J/cm	16.0 ft-lb/in	ASTM D256
	@Thickness 3.17 mm	@Thickness 0.125 in	

Thermal Properties	Metric	English	Comments
Melting Point	255 °C	491 °F	ASTM D789
Deflection Temperature at 0.46 MPa (66 psi)	216 °C	421 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	71.0 °C	160 °F	ASTM D648

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	254 °C	490 °F	
Middle Barrel Temperature	268 °C	515 °F	
Front Barrel Temperature	285 °C	545 °F	
Nozzle Temperature	266 - 282 °C	510 - 540 °F	
Melt Temperature	271 - 293 °C	520 - 560 °F	
Mold Temperature	26.7 - 93.3 °C	80.0 - 200 °F	
Drying Temperature	71.1 °C	160 °F	
Dry Time	4 hour	4 hour	
Injection Pressure	68.9 MPa	10000 psi	
Back Pressure	0.0689 - 0.689 MPa	10.0 - 100 psi	
Screw Speed	30.0 - 60.0 rpm	30.0 - 60.0 rpm	

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a convenient format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as the conversion to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding errors. [Click here](#) to view all the property values for this datasheet as they were originally entered.

These test results are believed to be based on reliable procedures. Due to variable conditions or methods of processing, NO GUARANTEES OR WARRANTIES ARE EXPECTED OR IMPLIED, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE. The above information is not to be construed as a license or a recommendation to infringe on any patents. Typical properties are for natural, unpigmented resins unless otherwise stated.

Actual processing conditions will depend on machine size, mold design, material residence time, and shot size. The settings shown should serve as a guide for selection of optimum operating conditions.

* This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

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