

# Nylene® 600

## TECHNICAL DATASHEET

TDS Ref # 132 Reviewed: 7/22/2013

### DESCRIPTION

- General purpose, medium viscosity, extrusion grade resin
- Other applications include wire jacketing and centrifugal casting which require good dielectric properties, toughness, and fatigue resistance
- Optimum processing conditions should provide a melt temperature of 481 °F - 500°F at the die

PROPERTIES	TEST METHOD	UNIT	VALUE
<b>PHYSICAL PROPERTIES</b>			
Specific Gravity	D792	n/a	1.14
<b>MECHANICAL PROPERTIES</b>			
Elongation	D638	%	70
Notched Izod @ 23°C	D256	ft. lb./ in. (J/m)	0.7
Tensile Strength	D638	psi (MPa)	12,000
<b>THERMAL PROPERTIES</b>			
DTUL @ 264 psi/1.82 MPa	D648	°F	144

### NOTES

- Testing conducted on dry-as-molded specimens at 73°F

### PROCESSING CONSIDERATIONS: EXTRUSION MEDIUM VISCOSITY

Zone °F (°C)	Feed	450-470 (232-243)	<b>Residence Time:</b> Screw should not be left idle for more than 3-4 minutes with melt in the barrel. Excess residence will be visible as black carbon specs in the melt.
	Transition	470-490 (243-254)	<b>Regrind Level:</b> Typically, up to 25% is recommended but higher levels are possible with little or no effect on flow and finish.
	Metering	480-500 (249-260)	<b>Drying Temperature:</b> Although Nylene resins are packaged and delivered in a low moisture state, it is good material handling practice to use a hopper dryer to maintain dryness. Should pre-drying be necessary, use settings of 180 °F (82.2°C) air at dew point of -40 at a rate of 1 cu. ft. / hour per pound of resin and a residence time of 2-4 hours.
	Die	480-500 (249-260)	
Line Rate	Melt Temp.	480-500 (249-260)	<b>Cooling and Sizing:</b> While both air and water can be used as the cooling medium, air is preferred. The use of air allows additional time for sizing and reduces residual stress. This aids in reducing warpage, especially in profiles with varying wall sections. If water is used, heat the first section to above 100 °F (38°C) to reduce quenching and residual stress.
	2 ½" extruder	1.5 - 1.9 pph/rpm	
	3 ½" extruder	3.5 - 4.5 pph/rpm	<b>Die Design:</b> Draw down of 30% is typical for all dimensions except wall thickness.
	4 ½" extruder	6.5 - 7.5 pph/rpm	<b>Land length:</b> should be around 10x wall thickness.

### CHARACTERISTICS

Resin Type: Nylon 6  
Product Characteristics:  
Mid RV, General Purpose

### COMPOUNDING PROCESSING

Mid RV

### EXTRUSION PROCESSING

Tubing & Profile

Wire & Cable

Tubing & Profile

### FEATURES

- Higher flow, fast process

### MARKETS USED

- Extrusion

### APPLICATIONS

- Rod Stock
- Slab
- Tubing
- Wire Insulation

### APPROVALS

- UL 94: V2: @0.058"

### DISCLAIMER

The data set forth herein has been carefully compiled by Nylene in our laboratories. Values shown are typical properties and not specifications. Since processing variables will affect properties, the reproducibility of our data in a customer's testing facility is not guaranteed. There is no warranty of any kind, either expressed or implied, applicable to the use of this information, and the user assumes all risk and liability in connection therewith.



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