

Nylene® 601

TECHNICAL DATASHEET

TDS Ref # 133 Reviewed: 7/22/2013

DESCRIPTION

- Heat stabilized version of Nylene 600 which is a general purpose, medium viscosity, extrusion grade resin
- Optimum processing conditions should provide a melt temperature of 481 °F - 500 °F at the die
- Applications include wire jacketing and centrifugal casting which require good dielectric properties, toughness, and fatigue resistance

PROPERTIES	TEST METHOD	UNIT	VALUE
PHYSICAL PROPERTIES			
Specific Gravity	D792	n/a	1.14
MECHANICAL PROPERTIES			
Elongation	D638	%	70
Notched Izod @ 23°C	D256	ft. lb./ in. (J/m)	0.7
Tensile Strength	D638	psi (MPa)	12,000
THERMAL PROPERTIES			
DTUL @ 264 psi/1.82 MPa	D648	°F	167
DTUL @ 66 psi/0.45 MPa	D648	°F	347

NOTES

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

PROCESSING CONSIDERATIONS: EXTRUSION MEDIUM VISCOSITY

Zone °F (°C)	Feed	450-470 (232-243)	Residence Time: 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)	Regrind Level: 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)	Drying Temperature: 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)	
	Melt Temp.	480-500 (249-260)	Cooling and Sizing: 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.
Line Rate	2 ½" extruder	1.5 - 1.9 pph/rpm	
	3 ½" extruder	3.5 - 4.5 pph/rpm	Die Design: Draw down of 30% is typical for all dimensions except wall thickness.
	4 ½" extruder	6.5 - 7.5 pph/rpm	Land length: should be around 10x wall thickness.

CHARACTERISTICS

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

EXTRUSION PROCESSING

Film
Wire & Cable

FEATURES

- Higher flow, fast process

MARKETS USED

- Extrusion

APPLICATIONS

- Rod Stock
- Slab
- Tubing
- Wire Insulation

APPROVALS

- UL 94: V2: @0.05"

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.



Headquarters and Facility:

55 Haul Road, Wayne, NJ 07470
P: 973-694-4141 | F: 973-694-3549

North American Sales Office:

31700 Telegraph Rd. Suite 235, MI 48025
P: 248-377-6769 | F: 248-377-3845

Nylene Custom Resins Facility:

1421 Hwy 136 W. Henderson, KY 42420
P: 270-826-7641 | TF: 800-626-7050

Nylene Canada Facility

200 McNab Street, Arnprior ON, K7S 3P2
P: 613-623-3191 | TF: 800-267-7394

For a complete listing of our global offices, visit:

www.nylene.com/contactus

www.nylene.com | info@nylene.com

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