

Nylene® 608

TECHNICAL DATASHEET

TDS Ref # 984 Reviewed: 4/18/2018

DESCRIPTION

- Especially recommended for flexible packaging where as a film or coating it is used for the outside layer in multi-ply film constructions
- Nylon 6, high viscosity, extrusion grade recommended for practically all types of extrusion including profile, film, and extrusion coating
- Optimum processing conditions should permit for a melt temperature of 550 - 575°F (289 - 301°C) at the die.

PROPERTIES	TEST METHOD	UNIT	VALUE
PHYSICAL PROPERTIES			
Relative Viscosity	D789	Formic Acid	300
Specific Gravity	D792	n/a	1.13
Water Absorption	D570	%	1.7
MECHANICAL PROPERTIES			
Flexural Modulus	D790	psi	380,000
Notched Izod Impact	D256	ft. Lb./in.	1.0
Rockwell Hardness	R Scale		118
Tensile Strength	D638	Psi	11,000
THERMAL PROPERTIES			
Heat Deflection	D648	@ 264 psi (1.8 Mpa) °C (°F)	60 (140)
Melt Point	D3418	°F (°C)	428 (220)

NOTES

- Testing conducted on dry-as-molded specimens at 73°F (23°C)

PROCESSING CONSIDERATIONS: EXTRUSION HIGH VISCOSITY

Zone °F (°C)	Feed	500-530 (260-277)	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	520-560 (271-293)	Regrind Level: Typically, up to 25% is recommended but higher levels are possible with little or no effect on flow and finish.
	Metering	550-575 (288-302)	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	550-575 (288-302)	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.
	Melt Temp.	550-575 (288-302)	
Line Rate	2 ½" extruder	1.5 - 1.9 pph/rpm	Die Design: Draw down of 30% is typical for all dimensions except wall thickness.
	3 ½" extruder	3.5 - 4.5 pph/rpm	
	4 ½" extruder	6.5 - 7.5 pph/rpm	Land length: should be around 10x wall thickness.

CHARACTERISTICS

Resin Type: Nylon 6
Product Characteristics:
High RV

EXTRUSION PROCESSING

Film

FEATURES

- Excellent melt flow
- Good melt strength
- Single layer nylon system

MARKETS USED

- Packaging Industry
- Extrusion

APPLICATIONS

- Blown Film
- Extrusion Coating
- Pipe
- Profile extrusion
- Rod Stock
- Tubing

APPROVALS

- Direct Food Contact: FDA 21 CFR 177.1500

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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