

Nylene® NX1440

TECHNICAL DATASHEET

TDS Ref # 56 Reviewed: 5/23/2017

DESCRIPTION

- Nylene NX1440 is a nucleated medium viscosity, fast cycle molding resin.
- Parts molded from NX1440 have better dimensional stability at moisture equilibrium than parts molded from other nylon
- Parts molded have better dimensional stability at moisture equilibrium than parts molded from conventional nylon.
- Crystallization initiators provide fast molding cycles through rapid melt set-up.
- Most useful for applications requiring greater stiffness and a higher heat distortion temperature.

PROPERTIES	TEST METHOD	UNIT	VALUE
PHYSICAL PROPERTIES			
Mold Shrinkage	n/a	in/in	0.014
Specific Gravity	D792	n/a	1.14
MECHANICAL PROPERTIES			
Elongation @ Break	D638	[%]	25
Flexural Modulus	D790	psi (MPa)	400,000 (2,759)
Notched Izod @ 23°C	D256	ft. lb./ in. (J/m)	0.8 (43)
Tensile Strength	D638	psi (MPa)	12,000 (83)
THERMAL PROPERTIES			
DTUL @ 1820 kPa	D648	°F (°C)	140 (60)
Melt Point	D3418	°F (°C)	428 (220)

NOTES

- Testing conducted on dry-as-molded specimens at 73°F
- li>Optimum processing conditions should provide a melt temperature of 460 - 480°F at the nozzle.

PROCESSING CONSIDERATIONS: PA 6 UNREINFORCED

°F (°C)	Rear Zone	430-475 (221-249)	Melt Temperature: Melt Temperature: Nylene® PA6 melts at 428°F, (220°C) actual melt temperatures of 440-560°F (227-293°C) are permissible, depending on residence time and shot size.
	Center Zone	440-500 (227-260)	Mold Temperature: 120-200°F (49-93°C), highly filled grades require 180-200°F (82-93°C) to obtain the best overall surface appearance, higher temperatures will increase crystallinity.
	Front Zone	460-520 (238-271)	Residence Time: should not exceed 6 minutes if possible, less with higher melt temperatures
	Nozzel	460-520 (238-271)	Shot Size: should be between 25-75% of barrel capacity.
	Melt Temp.	460-520 (238-271)	Fill Rate: fast fill rates are suggested for best surface appearance.
PRESSURE	Injection	4-12,000	Regrind Level: typically no more than 25% is recommended, with higher levels possible for unfilled grades depending on the end use requirements. Make certain regrind is properly dried to virgin moisture levels.
	Hold	3-9,000	Drying Temperature: 150-180°F (66-82°C) for 2-4 hours, Nylene® PA6 should be dried to less than 0.20% moisture for optimum performance. Drying longer than 4 hours or at higher temperatures may cause discoloration of the polymer or adversely affect important physical properties.
	Back	0-50	

CHARACTERISTICS

Resin Type: Nylon 6
 Product Characteristics:
 Unreinforced, Nucleating Agent, Mid RV, Fast Cycle

INJECTION MOLDING PROCESSING

Prime Grade

FEATURES

- Excellent Mold Release
- Fatigue Resistance
- General Purpose
- Good Friction characteristics
- Impact Resistant
- Resists Fuel, Oil, & Grease

MARKETS USED

- Automotive Applications
- General Applications
- Industrial Applications
- Furniture & Household

APPLICATIONS

- Air Intake Manifolds
- Bearing Cages
- Bearings
- Bottle Caps
- Cams
- Conveyor Roller
- Exterior/Interior Car Parts
- Fasteners
- Fuel Reservoirs
- Levers
- Parts Tray
- Racks
- Small and Large Appliances

DISCLAIMER



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

Copyright ©2019, Nylene. All rights reserved. Nylene is a designated trademark of Polymeric Resources Corporation.