

Nylene® PX1719

TECHNICAL DATASHEET

TDS Ref # 203 Reviewed: 10/29/2013

DESCRIPTION

- Nylene PX1719 is a heat-stabilized, modified nylon 6 molding and extrusion resin with high impact resistance and low flexural modulus.

PROPERTIES	TEST METHOD	UNIT	VALUE
PHYSICAL PROPERTIES			
Mold Shrinkage	(Injection Molded)	in/in	0.014
Specific Gravity	D792	n/a	1.08
MECHANICAL PROPERTIES			
Elongation @ Break	D638	[%]	250
Flexural Modulus	D790	psi (MPa)	95,000 (655)
Notched Izod @ 23°C	D256	ftlb/in (J/m)	16.0 (855)
Tensile Strength	D638	psi (MPa)	9,000 (62)
THERMAL PROPERTIES			
DTUL @ 455 KPa	D648	°F (°C)	285 (141)
Melt Point	D3418	°F (°C)	420 (215)

NOTES

- Testing conducted on dry-as-molded specimens at 73°F (22.8°C)

PROCESSING CONSIDERATIONS: EXTRUSION IMPACT MODIFIED

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	470-500 (243-260)	Regrind Level: Typically, up to 25% is recommended but higher levels are possible with little or no effect on flow and finish.
	Metering	490-530 (254-277)	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	490-530 (254-277)	
	Melt Temp.	490-530 (254-277)	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 warp, 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:
 Impact Modified, Heat Stabilized, High Impact, Low Flex

EXTRUSION PROCESSING

Tubing & Profile

INJECTION MOLDING PROCESSING

Prime Grade

MARKETS USED

- Automotive Applications

APPROVALS

- FMVSS 302: 2.71 in/min (68.8 mm/min)

AUTOMOTIVE SPECIFICATION

- ESB-M4D423-A2
- ASTM D4066 PA0263

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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