

Nylene® 2401 HSSP BK

TECHNICAL DATASHEET

TDS Ref # 67 Reviewed: 5/10/2012

DESCRIPTION

- High viscosity nylon copolymer with enhanced impact and high flexibility.
- Specifically designed for convoluted tubing, but can also be used for other extrusions and some molded parts.
- Optimized with good melt strength for high line speeds in thin wall sections.
- Very good physical properties and excellent extrusion characteristics to support extrusion of very complex profiles.

PROPERTIES	TEST METHOD	UNIT	VALUE
PHYSICAL PROPERTIES			
Specific Gravity	ISO 1183	n/a	1.09
MECHANICAL PROPERTIES			
Elongation	ISO 527	%	4
Flexural Modulus	ISO 178	MPa	1,800
Notched Izod @ 23°C	ISO 180	kJ/m ²	8
Notched Izod @ -40°C	ISO 180	KJ/m ²	5
Tensile Strength	ISO 527	MPa	54
THERMAL PROPERTIES			
DTUL @ 1820 kPa	D648	°F (°C)	113 [45]
Melt Point	ISO 11357	°C (°F)	[216] 421

NOTES

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

PROCESSING CONSIDERATIONS: EXTRUSION PLASTICIZED

Zone °F (°C)	Feed	420-440 (216-227)	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	440-460 (227-238)	Regrind Level: Typically, up to 25% is recommended but higher levels are possible with little or no effect on flow and finish.
	Metering	450-470 (232-243)	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	450-470 (232-243)	
	Melt Temp.	450-470 (232-243)	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:
 High Impact, Copolymer, Flex Modified,
 High RV

EXTRUSION PROCESSING

Tubing & Profile

INJECTION MOLDING PROCESSING

Prime Grade

FEATURES

- Low cost, heat resistance
- High viscosity
- Enhanced impact and high flexibility
- Designed for convoluted tubing
- Used for other extrusions & molded parts

MARKETS USED

- Automotive Applications
- Tool & Appliance
- Lawn and Garden
- Convoluted Tubing Industry

APPLICATIONS

- Convoluted Tubing

AUTOMOTIVE SPECIFICATION

- WSS-M4D933-A1
- MS-DB41 CPN 3788
- MS-DB41 CPN 4036
- M5648
- ASTM D4066 PA0284 UM020
- ASTM D6779 PA0220

DISCLAIMER



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