

Nylene® 764B

TECHNICAL DATASHEET

TDS Ref # 158 Reviewed: 5/17/2017

DESCRIPTION

- Nylene 764B is a heat stabilized, high impact modified nylon suitable for both blow-molding and extrusion.
- In addition to heat stabilization to prevent thermal degradation, parts molded from Nylene 764B have excellent impact strength right out of the mold without post conditioning.
- Outstanding features of Nylene 764B include high strength and high cold temperature impact.
- Cylinder temperatures should be in the 435 - 525°F (224 - 274 °C) range.
- Excellent melt strength to support large parisons

PROPERTIES	TEST METHOD	UNIT	VALUE
PHYSICAL PROPERTIES			
Specific Gravity	D792	n/a	1.086
MECHANICAL PROPERTIES			
ARM Drop Impact, C.T., -30°C	ARM	ft.lbs.	90
ARM Drop Impact, C.T., -40°C	ARM	ft.lbs.	70
ARM Drop Impact, R.T	ARM	ft.lbs.	150
Elongation	D638	%	250
Flexural Modulus	D790	psi (MPa)	270,000 (1,862)
Notched Izod @ -40°C	D256	ft.lb./in.	3.5
Notched Izod, R.T.	D256	ft.lb./in.	No Breaks
Tensile Strength	D638	psi (MPa)	7,600 (52)
THERMAL PROPERTIES			
Melt Point	D3418	°F (°C)	426 (219)

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)	
	Melt Temp.	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.
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

BLOW MOLDING PROCESSING

Prime Grade

EXTRUSION PROCESSING

Tubing & Profile

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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