

# Nylamid® 311-02 HS BK SP-LL

## TECHNICAL DATASHEET

TDS Ref # 814 Reviewed: 8/19/2014

### DESCRIPTION

• Nylamid 311-02 HS BK SP-LL is an economical, impact-modified nylon 6/6 molding resin with increased flexibility for injection molded parts.

PROPERTIES	TEST METHOD	UNIT	VALUE
<b>PHYSICAL PROPERTIES</b>			
Density	ISO 1183	g/cm <sup>3</sup>	1.08
<b>MECHANICAL PROPERTIES</b>			
Charpy	ISO 179-1	kJ/m <sup>2</sup>	11
Flexural Modulus	ISO 178	MPa	1800
Tensile Modulus	ISO 527	MPa	1900
Tensile Strength	ISO 527	MPa	55
<b>THERMAL PROPERTIES</b>			
Melt Point	ISO 11357	°C (°F)	257

### NOTES

• Testing conducted on dry-as-molded specimens at 73°F

### PROCESSING CONSIDERATIONS: PA 6/6 IMPACT MODIFIED

°F (°C)	Rear Zone	500-540 (260-282)	<b>Melt Temperature:</b> Nylene® PA6/6 melts at 490 °F (254°C), actual melt temperatures of 540-600 (282-316°C) are permissible, depending on residence time and shot size.
	Center Zone	520-560 (271-293)	<b>Mold Temperature:</b> 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	540-580 (282-304)	<b>Residence Time:</b> should not exceed 6 minutes if possible, less with higher melt temperatures.
	Nozzel	535-575 (279-301)	<b>Shot Size:</b> should be between 25-75% of barrel capacity.
	Melt Temp.	540-580 (282-304)	<b>Fill Rate:</b> fast fill rates are suggested for best surface appearance.
PRESSURE	Injection	7-15,000	<b>Regrind Level:</b> 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	5-12,000	<b>Drying Temperature :</b> 150-180 °F (65-82°C) for 2-4 hours, Nylene® PA6/6 should be dried to less than 0.20% moisture for optimum performance. Drying longer than 4 hours or at higher temperatures may cause oxidation of the polymer or remove essential volatiles.
	Back	0-50	

### CHARACTERISTICS

Resin Type: Nylon 6/6

Product Characteristics:

Impact Modified, Heat Stabilized, Heat Stabilized

### INJECTION MOLDING PROCESSING

Specialty Grade

### MARKETS USED

- General Applications
- Furniture & Household

### APPLICATIONS

- Caster Wheel
- Clips
- Fasteners

### 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](http://www.nylene.com/contactus)

[www.nylene.com](http://www.nylene.com) | [info@nylene.com](mailto:info@nylene.com)

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