

Nylene® 311-02 HS

TECHNICAL DATASHEET

TDS Ref # 968 Reviewed: 12/22/2017

DESCRIPTION

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

| PROPERTIES | TEST METHOD | UNIT | VALUE |
|------------------------------|-------------|---------------|-----------------|
| PHYSICAL PROPERTIES | | | |
| Specific Gravity | D792 | n/a | 1.08 |
| MECHANICAL PROPERTIES | | | |
| Elongation | D638 | % | 25 |
| Flexural Modulus | D790 | psi (MPa) | 305,000 (2,100) |
| Notched Izod @ 23°C | D256 | ftlb/in (J/m) | 3 (170) |
| Tensile Modulus | D638 | psi (MPa) | 344,000 (2,370) |
| Tensile Strength | D638 | psi (MPa) | 8,780 (60) |
| THERMAL PROPERTIES | | | |
| Melt Point | D3418 | °F (°C) | 485 (252) |

NOTES

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

PROCESSING CONSIDERATIONS: PA 6/6 IMPACT MODIFIED

| | | | |
|----------|-------------|----------------------|--|
| °F (°C) | Rear Zone | 500-540 (260-282) | <p>Melt Temperature: 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.</p> <p>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.</p> <p>Residence Time: should not exceed 6 minutes if possible, less with higher melt temperatures.</p> <p>Shot Size: should be between 25-75% of barrel capacity.</p> <p>Fill Rate: fast fill rates are suggested for best surface appearance.</p> <p>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.</p> <p>Drying Temperature: 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.</p> |
| | Center Zone | 520-560 (271-293) | |
| | Front Zone | 540-580 (282-304) | |
| | Nozzel | 535-575 (279-301) | |
| | Melt Temp. | 540-580 (282-304) | |
| PRESSURE | Injection | 7-15,000 | |
| | Hold | 5-12,000 | |
| | Back | 0-50 | |

CHARACTERISTICS

Resin Type: Nylon 6/6

Product Characteristics:

Unreinforced, Impact Modified, Heat Stabilized

INJECTION MOLDING PROCESSING

Economy Grade

FEATURES

- Tough & scuff resistant

MARKETS USED

- Automotive Applications
- General Applications
- Furniture & Household

APPLICATIONS

- Car Body Reinforcements
- Caster Wheel
- Clips
- Fasteners
- NVH Separators

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

www.nylene.com | info@nylene.com

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