

Nylene® PAC990-130HSL

TECHNICAL DATASHEET

TDS Ref # 954 Reviewed: 8/10/2017

DESCRIPTION

- Nylene PAC990-130HSL is a high viscosity, heat stabilized, extrusion grade, nylon 6/69 copolymer with a special lubrication package to enhance antiblock properties.
- Optimum processing conditions should permit for a melt temperature of approximately 500°F at the die.

| PROPERTIES | TEST METHOD | UNIT | VALUE |
|------------------------------|-------------|--------------------|-----------------|
| PHYSICAL PROPERTIES | | | |
| Relative Viscosity | ISO 307 | Sulfuric Acid | 3.9 |
| | D789 | Formic Acid | 130 |
| Specific Gravity | D792 | n/a | 1.11 |
| MECHANICAL PROPERTIES | | | |
| Elongation | D638 | % | 250 |
| Flexural Modulus | D790 | psi (MPa) | 319,000 (2,200) |
| Notched Izod | D256 | J/m (ft. Lb./ in.) | 60 (1.1) |
| Tensile Strength | D638 | psi (MPa) | 9,425 (65) |
| THERMAL PROPERTIES | | | |
| Melt Point | D3418 | °F (°C) | 374 (190) |

NOTES

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

PROCESSING CONSIDERATIONS: PA 6/69 EXTRUSION

| | | | |
|--------------|---------------|--------------------------|---|
| Zone °C (°F) | Feed | 232 – 243 (450 - 470) | 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 | 243 – 254 (470 - 490) | |
| | Metering | 230 – 245 (445 - 475) | |
| | Die | 249 – 260 (480 - 500) | |
| | Melt | 249 – 260 (480 - 500) | |
| Line Rate | 2 ½" extruder | 1.5 - 1.9 pph/rpm | Regrind Level: Typically, up to 25% is recommended but higher levels are possible with little or no effect on flow and finish. |
| | 3 ½" extruder | 3.5 - 4.5 pph/rpm | |
| | 4 ½" extruder | 6.5 - 7.5 pph/rpm | |
| | | | 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 65 °C (150°F) 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. |
| | | | 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 38 °C (100°F) to reduce quenching and residual stress. |
| | | | Die Design: Draw down of 30% is typical for all dimensions except wall thickness. |

CHARACTERISTICS

Resin Type: Nylon 6/69

Product Characteristics:

Lubricated, Heat Stabilized, High RV

EXTRUSION PROCESSING

Film

Monofilament

FEATURES

- Good Abrasion Resistance
- High Strength

MARKETS USED

- Packaging Industry
- Lawn and Garden
- Extrusion

APPLICATIONS

- Fishing Line
- Monofilament
- Netting
- Sewing Thread
- Trimmer Line
- Weaving Thread

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

Copyright ©2019, Nylene. All rights reserved. Nylene is a designated trademark of Polymeric Resources Corporation.