

Nylene® 7115 HS

TECHNICAL DATASHEET

TDS Ref # 147 Reviewed: 4/24/2018

DESCRIPTION

- 40% glass fiber and mineral reinforced, heat stabilized nylon 6 injection molding resin
- Suitable for a wide variety of applications that require both high strength performance and good appearance

PROPERTIES	TEST METHOD	UNIT	VALUE
PHYSICAL PROPERTIES			
Mold Shrinkage	n/a	in/in	0.004
Specific Gravity	D792	n/a	1.45
MECHANICAL PROPERTIES			
Elongation @ Break	D638	[%]	8
Flexural Modulus	D790	psi (MPa)	970,000 (6,690)
Notched Izod @ 23°C	D256	ft. lb./ in. (J/m)	0.85 (45)
Tensile Strength	D638	psi (MPa)	15,700 (108)
THERMAL PROPERTIES			
DTUL @ 1820 kPa	D648	°F (°C)	347 (175)
Melt Point	D3418	°F (°C)	431 (222)

NOTES

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

PROCESSING CONSIDERATIONS: PA 6 GLASS REINFORCED > 15%

°F (°C)	Rear Zone	480-530 (249-277)	Melt Temperature: Nylene PA6 melts at 428°F, (220°C) actual melt temperatures of 440-560°F (227-293°C) are permissible, depending on residence time and shot size.
	Center Zone	500-550 (260-288)	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.
	Front Zone	520-570 (271-299)	Residence Time: should not exceed 6 minutes if possible, less with higher melt temperatures.
	Nozzel	520-570 (271-299)	Shot Size: should be between 25-75% of barrel capacity.
	Melt Temp.	550-575 288-302	Fill Rate: fast fill rates are suggested for best surface appearance.
PRESSURE	Injection	8-18,000	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.
	Hold	6-15,000	Drying Temperature: 150-180°F (66-82°C) for 2-4 hours, Nylene PA6 should be dried to less than 0.20% moisture for optimum performance. Drying longer than 4 hours or at higher temperatures may cause discoloration of the polymer or adversely affect important physical properties.
	Back	0-50	

CHARACTERISTICS

Resin Type: Nylon 6
 Product Characteristics:
 Glass Reinforced, Mineral Reinforced,
 Heat Stabilized

INJECTION MOLDING PROCESSING

Prime Grade

FEATURES

- High strength and stiffness
- Very good dimensional stability
- Excellent surface appearance

MARKETS USED

- Automotive Applications
- General Applications
- Tool & Appliance

APPLICATIONS

- Bracket
- Door Handle
- Fan Blades
- Multifunction Switch
- Power Tool Housing
- Roof Rack

APPROVALS

- FMVSS 302: 1.49 in/min (38 mm/min)

AUTOMOTIVE SPECIFICATION

- WSK-M4D822-A
- MS-DB41 CPN 3487
- ASTM D4066 PA022R40 KD093

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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