

Nylene® 323 HS

TECHNICAL DATASHEET

TDS Ref # 88 Reviewed:

DESCRIPTION

- Heat stabilized nylon 6 copolymer for both extrusion and injection molding
- Suitable for flexible tubing and overmolding extrusions as well as molding applications that require maximum flexibility from a nylon type resin
- Exhibits excellent flexibility and impact resistance in addition to the heat and chemical resistance of nylon 6 resins

PROPERTIES	TEST METHOD	UNIT	VALUE
PHYSICAL PROPERTIES			
Specific Gravity	D792	n/a	1.10
MECHANICAL PROPERTIES			
Elongation	D638	%	315
Flexural Modulus	D790	psi (MPa)	75,000 (517)
Notched Izod @ 23°C	D256	ftlb/in (J/m)	10 (534)
Tensile Strength	D638	psi (MPa)	8,000 (55)
THERMAL PROPERTIES			
DTUL @ 264 psi/1.82 MPa	D648	°F (°C)	131 (55)
Melt Point	D3418	°F (°C)	410 (210)

NOTES

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

PROCESSING CONSIDERATIONS: PA 6 IMPACT MODIFIED

°F (°C)	Rear Zone	440-500 (227-260)
	Center Zone	460-520 (238-271)
	Front Zone	480-540 (249-282)
	Nozzel	480-540 (249-282)
	Melt Temp.	480-540 (249-282)
PRESSURE	Injection	7-15,000
	Hold	5-12,000
	Back	0-50

Melt Temperature: 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.

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.

Residence Time: should not exceed 6 minutes if possible, less with higher melt temperatures

Shot Size: should be between 25-75% of barrel capacity.

Fill Rate: fast fill rates are suggested for best surface appearance.

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.

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.

CHARACTERISTICS

Resin Type: Nylon 6

Product Characteristics:

Unreinforced, Impact Modified, Flex Modified, Copolymer, Heat Stabilized

EXTRUSION PROCESSING

Tubing & Profile

MARKETS USED

- Automotive Applications
- Convoluted Tubing Industry

APPLICATIONS

- Convoluted Tubing

AUTOMOTIVE SPECIFICATION

- ESF-M4D423-A
- MS-DB41 CPN 2785

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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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