

Nylene® 402

TECHNICAL DATASHEET

TDS Ref # 94 Reviewed: 7/18/2013

DESCRIPTION

- Offers outstanding toughness and flexibility.
- Exhibits excellent flow properties at temperature and pressure settings suitable for a wide variety of general purpose molding applications
- Optimum processing conditions should provide a melt temperature of 450°F-470°F at nozzle

PROPERTIES	TEST METHOD	UNIT	VALUE
PHYSICAL PROPERTIES			
Specific Gravity	D792	n/a	1.13
MECHANICAL PROPERTIES			
Elongation	D638	%	300
Flexural Modulus	D790	psi (MPa)	150,000
Notched Izod @ 23°C	D256	ft. lb./ in. (J/m)	2.4
Tensile Strength	D638	Psi	7,500
THERMAL PROPERTIES			
DTUL @ 264 psi/1.82 MPa	D648	°F	133
DTUL @ 66 psi/0.45 MPa	D648	°F (°C)	320

NOTES

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

PROCESSING CONSIDERATIONS: PA 6 UNREINFORCED

°F (°C)	Rear Zone	430-475 (221-249)
	Center Zone	440-500 (227-260)
	Front Zone	460-520 (238-271)
	Nozzel	460-520 (238-271)
	Melt Temp.	460-520 (238-271)
PRESSURE	Injection	4-12,000
	Hold	3-9,000
	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, General Purpose,
Toughened, UV Stabilized

INJECTION MOLDING PROCESSING

Prime Grade

MARKETS USED

- General Applications

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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