

# Nylene® CX3395

## TECHNICAL DATASHEET

TDS Ref # 179 Reviewed: 4/20/2018

### DESCRIPTION

- Nylene CX3395 is a high RV nylon 6,69 copolymer suitable for both blown and cast film co-extrusion.
- CX3395 has a lower melt point and is less crystalline than standard nylon 6 resins. In addition to its excellent film application properties, CX3395 exhibits superior deep-drawing characteristics.

PROPERTIES	TEST METHOD	UNIT	VALUE
<b>PHYSICAL PROPERTIES</b>			
Moisture	D648	%	<0.1
Oxygen Permeably	D3985	See Note#2	3.8*
Specific Gravity	D792	n/a	1.11
<b>THERMAL PROPERTIES</b>			
Melt Point	D3418	°F (°C)	385 (195)
<b>FILM PROPERTIES</b>			
Break Stress	D882	psi (MPa)	84410 (58)
Maximum Strain	D882	%	350
Tensile Yield Strength	D882	psi (MPa)	3845 (26.5)
Ultimate Tensile Strength	D882	psi (MPa)	8645 (60)
Yield Stress	D882	psi (MPa)	3915 (27)
Young's Modulus	D882	psi (MPa)	48575 (335)

### NOTES

- Oxygen permeability measured using 1 mil. monofilam.
- cc-mil/100 sq. in.-24 hr.-atm. @ 75 °F (24 °C)
- For comparison, values for nylon 6 monofilam of one mil was measured at 3.1 cc-mil/100 sq. in.-24 hr.-atm.
- Nylene CX3395 can be processed effectively with extruder barrel and die temperatures set to give melt temperatures in the range of 440 – 500° (227 - 260 °C)

### PROCESSING CONSIDERATIONS: PA 6/69 EXTRUSION

Zone °C (°F)	Feed	232 – 243 (450 - 470)	<b>Residence Time:</b> 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	<b>Drying Temperature:</b> 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.
	3 ½" extruder	3.5 - 4.5 pph/rpm	
	4 ½" extruder	6.5 - 7.5 pph/rpm	
			<b>Cooling and Sizing:</b> 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.
			<b>Die Design:</b> Draw down of 30% is typical for all dimensions except wall thickness.

### CHARACTERISTICS

Resin Type: Nylon 6  
Product Characteristics:  
Copolymer, High RV

### EXTRUSION PROCESSING

Film

### FEATURES

- Excellent elongation
- Good shrink
- Low residual monomer
- Excellent toughness
- Excellent chemical Resistance
- Excellent Transparency
- Low oxygen permeability
- Good lot-to-lot consistency.

### MARKETS USED

- Packaging Industry
- Food Packaging

### APPLICATIONS

- Blown Film
- Cast Film (anti-static)
- Deep Draw
- Gel Free

### APPROVALS

- Indirect Food Contact: FDA 21 CFR 111.1395

### 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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