Nylene® 609

Polymeric Resources Corporation (PRC) - *Polyamide 6*

General Information

Product Description

- Nylon 6, high viscosity, extrusion grade recommended for practically all types of extrusion including profile, film, and extrusion coating
- Can also be used for blow molding applications
- Optimum processing conditions should permit for a melt temperature of 550 - 575°F (289 - 301°C) at the die.
- Especially recommended for flexible packaging where as a film or coating it is used for the outside layer in multi-ply film constructions

General			
Material Status	• Commercial: Active		
Availability	• North America		
Features	• Food Contact Acceptable • Good Flow	• Good Melt Strength • High Viscosity	
Uses	• Blown Film • Coating Applications • Packaging	• Piping • Profiles • Rods	• Tubing
Agency Ratings	• FDA 21 CFR 177.1500		
Automotive Specifications	• STELLANTIS MS-DB-41 CPN 5165		
Forms	• Pellets		
Processing Method	• Extrusion	• Film Extrusion	

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.12		ASTM D792
Water Absorption (Equilibrium)	1.7	%	ASTM D570
Relative Viscosity [2]	200		ASTM D789
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength	11000	psi	ASTM D638
Tensile Elongation (Break, 171°F)	140	%	ASTM D638
Flexural Modulus	380000	psi	ASTM D790
Flexural Strength	260000	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F)	1.0	ft·lb/in	ASTM D256
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	118		
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (264 psi, Unannealed)	284	°F	ASTM D648
Peak Melting Temperature	430	°F	ASTM D3418

Processing Information

Extrusion	Nominal Value	Unit
Drying Temperature	180	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Regrind	25	%
Cylinder Zone 1 Temp.	421 to 444	°F
Cylinder Zone 3 Temp.	435 to 466	°F
Cylinder Zone 5 Temp.	444 to 475	°F
Melt Temperature	455 to 489	°F
Die Temperature	444 to 475	°F

Notes
[1] Typical properties: these are not to be construed as specifications.
[2] Formic Acid