

DUPONT™ ZYTEL® LONG CHAIN POLYAMIDE RESINS

PRODUCT REFERENCE GUIDE

DuPont™ Zytel® Long Chain Polyamide resins offer excellent chemical and hydrolysis resistance combined with dimensional stability and performance consistency in humid environments for demanding applications, such as hose and tubing.

The portfolio, covering a wide range of performance, includes PA612 and renewably sourced PA1010 and PA610 polymer families, in addition to copolymers, alloys and reinforced grades. Zytel® RS renewably sourced polyamides contain 20% to 100% by weight of renewable content derived from a non-food crop requiring no maintenance to grow.

Long Chain Polyamides are typically defined as polyamides with a repeating unit monomer length containing at least 10 carbon atoms. Fewer amide groups in each molecule results in less hydrogen bonding. This translates into increased flexibility and lower moisture absorption.

PRODUCT FAMILIES

Zytel® LCPA Family	Polymer Type	RS Content	Application Examples
1000 Series	PA1010	20-100%	Biodiesel and gasoline applications
2000 Series	LCPA blends	20-100%	Truck air brake tubes
3000 Series	PA610	20-63%	Fuel connectors, radiator end tanks, filaments
4000 Series	Chemically Modified PA610	20-60%	Fuel lines
6000 Series, 150 Series	PA612	NA	Auto sensors, cooling hose, wire & cable, battery seals, filaments
7000 Series	Chemically Modified PA612	NA	Fuel lines, industrial hoses

PRODUCT PORTFOLIO

Category	PA1010	PA610, CM PA610, Blends	PA612, CM PA612	
Extrusion - Plasticized	LC1600	LC2600	LC6601	
	LC1610	LC2800	LC7601	
	LC1800	LC4601	LC7602	
Extrusion - Unplasticized	LC1000	LC3060	158 – 158L	
	LC1010	LC3090	159	
	LC1201	LC3160	LC6200 LC6210	
Injection Molding - Unreinforced	1011L	3061HSL 3261TL 3261THSL	151 – 151L 153HSL 157HSL FE3734	
	Glass, Glass/Carbon Fiber Reinforced	11G30L	30G30L 32CG20HSL	77G33L 77G43L FE5382

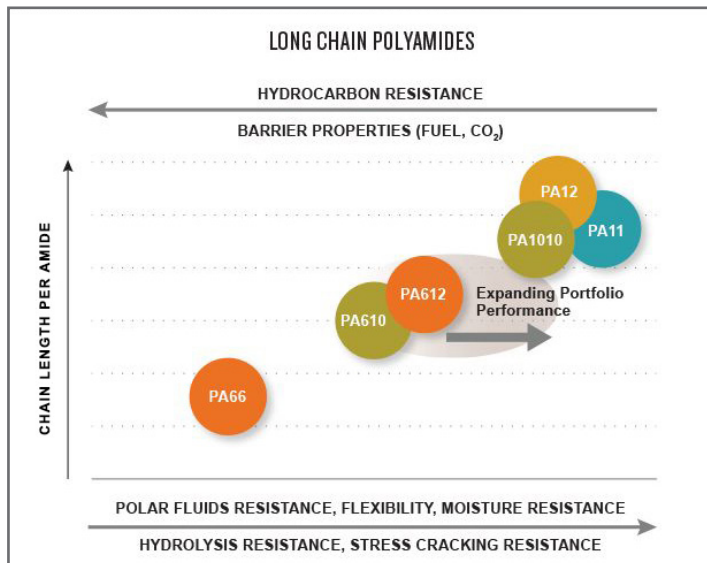


DuPont™ Zytel® in Fuel Line

PROPERTIES

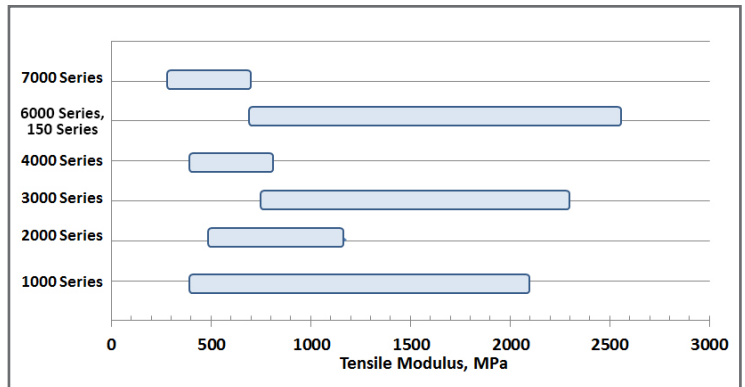
The number of amide groups in each molecular chain determines performance by balancing key properties.

Figure 1. Long Chain Polyamides



Flexibility can be increased by adding modifiers, tougheners and/or plasticizer to the polyamide polymer. The Zytel® LCPA family covers a broad range of flexibility.

Figure 2. Flexibility Range for Zytel® LCPA Families (DAM and Conditioned Values for Unreinforced Resins)

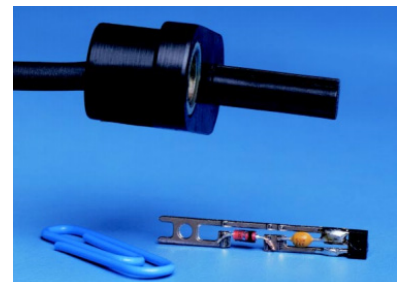


PROCESSING

Appropriate local exhaust ventilation should be used to capture and remove fumes that may be generated during processing. Please refer to our brochure [“Proper Use of Local Exhaust Ventilation During Processing of Plastics”](#).

* For extrusion process recommendations, please refer to the [“DuPont™ Zytel® All in One Extrusion Processing Manual”](#).

* For injection molding recommendations, please refer to our technical datasheets. All brochures, manuals, and datasheets are available on plastics.dupont.com.



DuPont™ Zytel® in Wheel Speed Sensor

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