

DuPont™ Zytel® 157HSL BK010

NYLON RESIN

Product Information

DuPont™ Zytel® LCPA long chain polyamide resins provide an innovative and growing portfolio of flexible polymers with excellent thermal, chemical, and hydrolysis resistance. The diverse selection of Zytel® LCPA grades is targeted for a range of performance characteristics, balancing temperature resistance, flexibility and low permeation.

Zytel® 157HSL BK010 is a heat stabilized, weatherable, lubricated polyamide 612 resin that is suitable for molding and extrusion applications.

General information	Value	Unit	Test Standard
Resin Identification	PA612	-	ISO 1043
Part Marking Code	PA612	-	ISO 11469
Rheological properties	dry / cond	Unit	Test Standard
Viscosity number	115 ⁽¹⁾ / *	cm ³ /g	ISO 307, 1157, 1628 DS
Molding shrinkage, parallel	1.3 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	1.4 / -	%	ISO 294-4, 2577
1: intrapolated DS: Derived from similar grade			
Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	2500 / 1500	MPa	ISO 527-1/-2
Yield stress	65 / 53	MPa	ISO 527-1/-2
Yield strain	4.4 / 18	%	ISO 527-1/-2
Nominal strain at break	22 / >50	%	ISO 527-1/-2
Flexural Modulus	2300 / 1500	MPa	ISO 178
Flexural Strength	80 / 44	MPa	ISO 178
Charpy impact strength, 73°F	N / N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 73°F	4 / 7	kJ/m ²	ISO 179/1eA
Izod notched impact strength, 73°F	4 / -	kJ/m ²	ISO 180/1A
Thermal properties	dry / cond	Unit	Test Standard
Melting temperature, 18°F/min	218 / *	°C	ISO 11357-1/-3
Temp. of deflection under load, 260 psi	62 / *	°C	ISO 75-1/-2
RTI, electrical			UL 746B
30mil	105 / *	°C	
60mil	105 / *	°C	
120mil	105	°C	
RTI, impact			UL 746B
30mil	65	°C	
60mil	65 / *	°C	
120mil	65	°C	
RTI, strength			UL 746B
30mil	65	°C	
60mil	65 / *	°C	
120mil	65	°C	
Flammability	dry / cond	Unit	Test Standard
Burning Behav. at 60mil nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
UL recognition	yes / *	-	UL 94
Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.86 / *	mm	IEC 60695-11-10
UL recognition	yes / *	-	UL 94
Flammability, 3.0mm	HB / *	-	IEC 60695-11-10
FMVSS Class	B	-	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<100	mm/min	ISO 3795 (FMVSS 302)

To find out more, visit [DuPont Performance Polymers](#) or contact nearest DuPont location.

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Other properties	dry / cond	Unit	Test Standard
Density	1070 / -	kg/m ³	ISO 1183
Injection	Value	Unit	Test Standard
Drying Recommended	yes	-	-
Drying Time, Dehumidified Dryer	2 - 4	h	-
Processing Moisture Content	≤0.15	%	-
Melt Temperature Optimum	250	°C	-
Min. melt temperature	230	°C	-
Max. melt temperature	290	°C	-
Mold Temperature Optimum	70	°C	-
Min. mold temperature	50	°C	-
Max. mold temperature	90	°C	-
Extrusion	Value	Unit	Test Standard
Drying Temperature	75 - 80	°C	-
Drying Time, Dehumidified Dryer	3 - 4	h	-
Processing Moisture Content	≤0.06	%	-
Melt Temperature Optimum	240	°C	-
Melt Temperature Range	235 - 250	°C	-

Characteristics			
Processing	• Injection Molding		
Delivery form	• Pellets		
Additives	• Release agent		
Special characteristics	• Heat stabilized or stable to heat		
Regional Availability	• North America • Europe	• Asia Pacific • South and Central America	• Near East/Africa • Global

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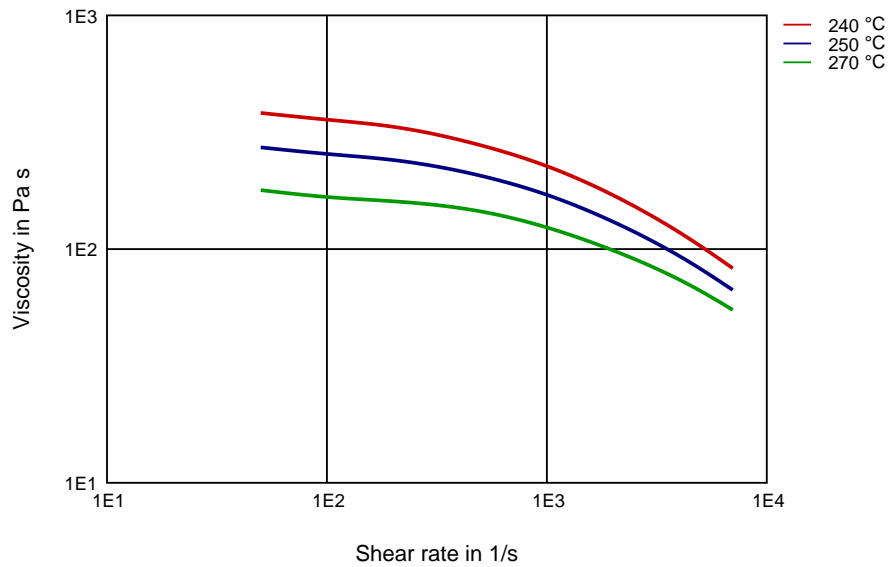


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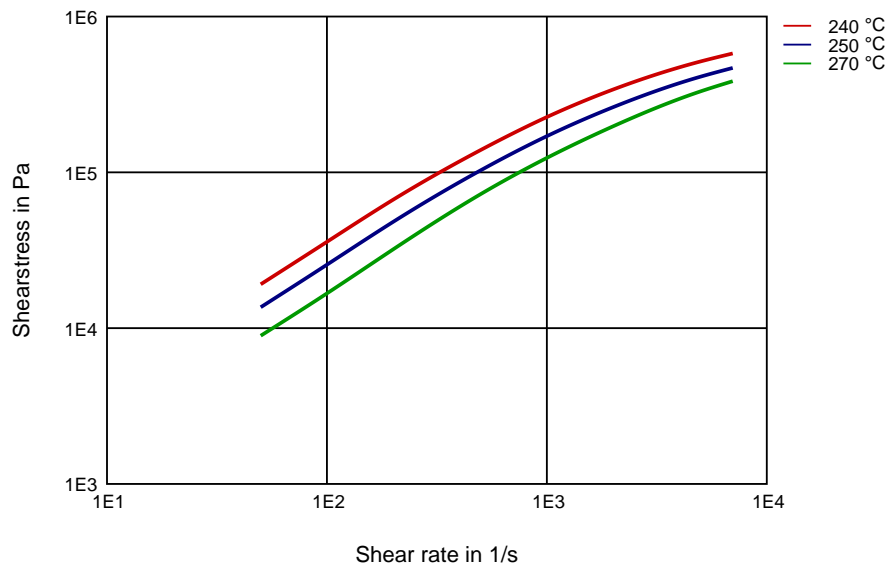
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Diagrams

Viscosity-shear rate



Shearstress-shear rate



Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc. ISO Mechanical properties measured at 160 mil (Hytrel® measured at 80 mil), IEC Electrical properties measured at 80 mil, all ASTM properties

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measured at 120 mil, and test temperatures are 73°F unless otherwise stated.

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