

DuPont™ Zytel®

nylon resin

Zytel® E101L BK080

Zytel® E101L BK080 is a lubricated, black polyamide 66 resin for injection molding.

Property	Test Method	Units	Value	
			DAM	50%RH
Identification				
Resin Identification	ISO 1043		PA66	
Part Marking Code	ISO 11469		>PA66<	
Mechanical				
Yield Stress	ISO 527	MPa (kpsi)	82 (11.9)	55 (8.0)
Strain at Break	ISO 527	%		
50mm/min			45	>100
Nominal Strain at Break	ISO 527	%	23	>50
Yield Strain	ISO 527	%	4.3	25
Tensile Modulus	ISO 527	MPa (kpsi)	3000 (435)	1400 (200)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²		
-30°C (-22°F)			3	2.5
23°C (73°F)			5.5	12
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m ²		
-30°C (-22°F)			100	120
23°C (73°F)			NB	NB
Thermal				
Deflection Temperature	ISO 75f	°C (°F)		
0.45MPa			200 (392)	
1.80MPa			70 (158)	
Melting Temperature	ISO 11357-1/-3	°C (°F)		
10°C/min			262 (504)	

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc.

ISO Mechanical properties measured at 4.0mm, ISO Electrical properties measured at 2.0mm, and all ASTM properties measured at 3.2mm.

Test temperatures are 23°C unless otherwise stated.

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			DAM	50%RH
Flammability				
Flammability Classification 0.71mm	IEC 60695-11-10		V-2	
Flammability Classification 0.71mm	UL94		V-2	
Glow Wire Flammability Index 0.71mm	IEC 60695-2-12	°C	960	
1.5mm			960	
3.0mm			960	
Glow Wire Ignition Temperature 0.71mm	IEC 60695-2-13	°C	725	
1.5mm			750	
3.0mm			800	
Temperature Index				
RTI, Electrical 0.71mm	UL 746B	°C	130	
RTI, Impact 0.71mm	UL 746B	°C	75	
RTI, Strength 0.71mm	UL 746B	°C	85	
Other				
Density	ISO 1183	kg/m ³ (g/cm ³)	1140 (1.14)	
Processing				
Melt Temperature Range		°C (°F)	280-300 (535-570)	
Melt Temperature Optimum		°C (°F)	290 (555)	
Mold Temperature Range		°C (°F)	50-90 (120-190)	
Mold Temperature Optimum		°C (°F)	70 (160)	
Drying Time, Dehumidified Dryer		h	2-4	
Drying Temperature		°C (°F)	80 (175)	
Processing Moisture Content		%	<0.20	

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