

DuPont™ Zytel®

nylon resin

Zytel® ST7301 NC010

Zytel® ST7301 NC010 is a Super Tough, heat stabilized, lubricated polyamide 6 resin for injection molding and extrusion. It offers outstanding impact resistance over a wide temperature and humidity range and high productivity.

Property	Test Method	Units	Value	
			DAM	50%RH
Identification				
Resin Identification	ISO 1043		PA6-HI	
Part Marking Code	ISO 11469		>PA6-HI<	
Mechanical				
Yield Stress	ISO 527	MPa (kpsi)	48 (7)	29 (4.2)
Strain at Break	ISO 527	%		
50mm/min			>50	>50
Nominal Strain at Break	ISO 527	%	>50	>50
Yield Strain	ISO 527	%	4	30
Tensile Modulus	ISO 527	MPa (kpsi)	1800 (261)	540 (78.3)
Flexural Modulus	ISO 178	MPa (kpsi)	1700 (247)	570 (82.7)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²		
-40°C (-40°F)			18	17
-30°C (-22°F)			17	18
-20°C (-4°F)			24	23
0°C (32°F)			74	94
23°C (73°F)			78	118

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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Property	Test Method	Units	Value	
			DAM	50%RH
Thermal				
Deflection Temperature 0.45MPa	ISO 75f	°C (°F)	95 (203)	
1.80MPa			51 (124)	
Melting Temperature 10°C/min	ISO 11357-1/-3	°C (°F)	221 (430)	
Other				
Density	ISO 1183	kg/m ³ (g/cm ³)	1060 (1.06)	
Molding Shrinkage Parallel, 2.0mm	ISO 294-4	%	1.2	
Processing				
Melt Temperature Range		°C (°F)	260-280 (500-535)	
Melt Temperature Optimum		°C (°F)	270 (520)	
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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