

DuPont™ Zytel®

nylon resin

Zytel® 408HS NC010

Zytel® 408HS NC010 is a general purpose, heat stabilized, modified nylon 66 resin for injection molding applications.

applications:

Property	Test Method	Units	Value	
			DAM	50%RH
Identification				
Resin Identification	ISO 1043		PA66-I	
Part Marking Code	ISO 11469		>PA66-I<	
Mechanical				
Yield Stress	ISO 527	MPa (kpsi)	63 (9.1)	43 (6.2)
Nominal Strain at Break	ISO 527	%	37	>50
Yield Strain	ISO 527	%	5	29
Tensile Modulus	ISO 527	MPa (kpsi)	2300 (333.5)	985 (142.9)
Poissons Ratio			0.42	
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²		
-30°C (-22°F)			18	11
23°C (73°F)			19	26
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m ²		
-30°C (-22°F)			NB	420
23°C (73°F)			NB	NB
Thermal				
Deflection Temperature	ISO 75f	°C (°F)		
0.45MPa			176 (349)	
1.80MPa			63 (145)	
Melting Temperature	ISO 11357-1/-3	°C (°F)		
10°C/min			263 (505)	
CLTE, Normal	ISO 11359-1/-2	E-4/C (E-4/F)		
23 - 55°C (73 - 130°F)			1.1 (0.61)	
CLTE, Parallel	ISO 11359-1/-2	E-4/C (E-4/F)		
23 - 55°C (73 - 130°F)			1.3 (0.72)	

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
Electrical				
Surface Resistivity	IEC 60093	ohm	1E12	
Relative Permittivity	IEC 60250			
1E2 Hz			3.5	
1E6 Hz			3.3	
Volume Resistivity	IEC 60093	ohm m	1E12	
Dissipation Factor	IEC 60250	E-4		
1E2 Hz			75	
1E6 Hz			132	
CTI	UL 746A	V		
3.0mm			>600	
Flammability				
Flammability Classification	IEC 60695-11-10			
0.81mm			HB	
1.5mm			HB	
3.0mm			HB	
Flammability Classification	UL94			
0.81mm			HB	
1.5mm			HB	
3.0mm			HB	
Oxygen Index	ISO 4589-1/-2	%	22	
High Amperage Arc Ignition Resistance	UL 746A	arcs		
0.81mm			>200	
1.5mm			180	
3.0mm			>200	
Hot Wire Ignition	UL 746A	s		
0.81mm			9	
1.5mm			11	
3.0mm			25	

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Property	Test Method	Units	Value	
			DAM	50%RH
Temperature Index				
RTI, Electrical	UL 746B	°C		
0.81mm			125	
1.5mm			125	
3.0mm			125	
RTI, Impact	UL 746B	°C		
0.81mm			75	
1.5mm			75	
3.0mm			75	
RTI, Strength	UL 746B	°C		
0.81mm			85	
1.5mm			85	
3.0mm			85	
Other				
Density	ISO 1183	kg/m ³ (g/cm ³)	1097 (1.097)	
Water Absorption	ISO 62, Similar to	%		
Equilibrium 50%RH			2	
Saturation, immersed			7	
Molding Shrinkage	ISO 294-4	%		
Normal, 2.0mm			1.6	
Parallel, 2.0mm			1.6	
Mold Shrinkage		%		
Flow, 3.2mm (0.126in)			1.5	
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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