



# Zytel®

nylon resin

## Zytel® 132F NC010

### Nylon Resin

Zytel® 132F is a nucleated, lubricated polyamide 66 for injection molding. It is suitable for fast production cycles and high productivity applications

Property	Test Method	Units	Value	
			DAM	50%RH
<b>Mechanical</b>				
Tensile Strength	ASTM D 638	MPa (kpsi)	90 (13.0)	65.5 (9.5)
Yield Stress	ISO 527-1/-2	MPa (kpsi)	91 (13.2)	60 (8.7)
Yield Strain	ISO 527-1/-2	%	4.4	18
Elongation at Break	ASTM D 638	%	25	190
Nominal Strain at Break	ISO 527-1/-2	%	13	>50
Tensile Modulus	ISO 527-1/-2	MPa (kpsi)	3400 (493)	1600 (232)
Notched Izod Impact	ISO 180/1A	kJ/m <sup>2</sup>		
-30°C (-22°F)			4	2
23°C (73°F)			4	8
Izod Impact	ASTM D 256	J/m (ft lb/in)	42.7 (0.8)	101 (1.9)
Notched Charpy Impact	ISO 179/1eA	kJ/m <sup>2</sup>		
-30°C (-22°F)			3	2.5
23°C (73°F)			4	8
Unnotched Charpy Impact	ISO 179/1eU	kJ/m <sup>2</sup>		
-30°C (-22°F)			200	
23°C (73°F)			300	NB

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying  
 ISO Mechanical properties measured at 4.0mm, ISO Electrical properties measured at 2.0mm, and all ASTM properties measured at 3.2m  
 Test temperatures are 23°C unless otherwise stated

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			DAM	50%RH
<b>Thermal</b>				
Heat Deflection Temperature 0.45MPa (66psi) 1.8MPa (264psi)	ASTM D 648	°C (°F)	235 (455) 70 (158)	
Deflection Temperature 0.45MPa 1.80MPa	ISO 75-1/-2	°C (°F)	225 (437) 75 (167)	
Melting Point	ASTM D 3418	°C (°F)	264 (507)	
Melting Temperature	ISO 3146C	°C (°F)	263 (505)	
<b>Electrical</b>				
Surface Resistivity	ASTM D 257	ohm	1 E14	
Volume Resistivity	ASTM D 257	ohm cm	1 E15	
Dielectric Strength, Short Time 1.6mm (0.063in) 3.2mm (0.126in)	ASTM D 149	kV/mm (V/mil)	23.2 (590) 15.4 (390)	
Dielectric Constant 1E2 Hz 1E3 Hz 1E6 Hz	ASTM D 150		4.0 3.9 3.6	
Dissipation Factor 1E2 Hz 1E3 Hz 1E6 Hz	ASTM D 150		0.01 0.02 0.02	
<b>Flammability</b>				
Flammability Classification 0.71mm 1.5mm 3.0mm 6.0mm	UL94		V-2 V-2 V-2 V-2	
Oxygen Index	ISO 4589	%	29	

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			DAM	50%RH
<b>Temperature Index</b>				
RTI, Electrical	UL 746B	°C		
0.71mm			130	
1.5mm			130	
3.0mm			130	
6.0mm			130	
RTI, Mechanical with Impact	UL 746B	°C		
0.71mm			75	
1.5mm			75	
3.0mm			75	
6.0mm			75	
RTI, Mechanical without Impact	UL 746B	°C		
0.71mm			85	
1.5mm			85	
3.0mm			85	
6.0mm			85	
<b>Other</b>				
Specific Gravity	ASTM D 792		1.14	
Density	ISO 1183	kg/m <sup>3</sup> (g/cm <sup>3</sup> )	1140 (1.14)	
Hardness, Rockwell	ASTM D 785			
Scale R			122	111
Humidity Absorption	ISO 62, Similar to	%		
Equilibrium 50%RH			2.7	
Water Absorption	ISO 62, Similar to	%		
Saturation, immersed			8.5	

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<b>Processing</b>				
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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