



Zytel®

nylon resin

Zytel® ST801 NC010 Super Tough Nylon 66 Resin

Zytel® ST801 NC010 is a general purpose Super Tough nylon 66 resin. It offers outstanding impact resistance and high productivity.

Property	Test Method	Units	Value	
			DAM	50%RH
Mechanical				
Tensile Strength	ASTM D 638	MPa (kpsi)	51.7 (7.5)	41.4 (6.0)
Tensile Strength at Yield	ASTM D 638	MPa (kpsi)	50 (7.2)	
Elongation at Break	ASTM D 638	%	60	210
Elongation at Yield	ASTM D 638	%	5.5	
Poisson's Ratio			0.41	
Flexural Modulus	ASTM D 790	MPa (kpsi)	1689 (245)	862 (125)
Flexural Strength	ASTM D 790	MPa (kpsi)	68 (9.8)	
Izod Impact	ASTM D 256	J/m (ft lb/in)	907 (17.0)	1068 (20.0)
Thermal				
Heat Deflection Temperature	ASTM D 648	°C (°F)		
0.45MPa (66psi), Annealed			216 (421)	
1.8MPa (264psi), Annealed			71 (160)	
CLTE, Flow	ASTM D 696	E-4/K (E-4/F)	1.2 (0.67)	
Melting Point	ASTM D 3418	°C (°F)	263 (505)	
Electrical				
Volume Resistivity	ASTM D 257	ohm cm	1 E14	1 E13
Dielectric Constant	ASTM D 150			
1E2 Hz			3.2	5.5
1E3 Hz			3.2	4.5
1E6 Hz			2.9	3.2
Dissipation Factor	ASTM D 150			
1E2 Hz			0.01	0.20
1E3 Hz			0.01	0.10
1E6 Hz			0.02	0.05
Flammability				
UL94 Rating at Min. Thickness	UL94		HB	
UL94 Min. Thickness Tested	UL94	mm (in)	0.81 (0.032)	

Contact DuPont for MSDS, general guides and/or additional information about ventilation, handling, purging, drying, etc.
Mechanical properties measured at 23°C (73°F) unless otherwise stated.

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Zytel® ST801 NC010

Property	Test Method	Units	Value	
			DAM	50%RH
Other				
Specific Gravity	ASTM D 792	g/cm3	1.08	7-8
Density	ASTM D 792		1.08	
Taber Abrasion	ASTM D 1044		mg	
CS-17 Wheel, 1kg, 1000 cycles			5-6	
Water Absorption	ASTM D 570	%		
Immersion 24hr			1.2	
Saturation			6.7	
Mold Shrinkage		%		
Flow, 3.2mm (0.125in)			1.8	
Processing				
Melt Temperature Range		°C (°F)	288-293 (550-560)	
Mold Temperature Range		°C (°F)	38-93 (100-200)	
Processing Moisture Content		%	0.2	

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