



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 Yield	ASTM D 638	%	5.5	
Elongation at Break	ASTM D 638	%	60	210
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 0.45MPa (66psi), Annealed	ASTM D 648	°C (°F)	216 (421)	
1.8MPa (264psi), Annealed			71 (160)	
CLTE, Parallel 23 - 55C (73 - 130F)	ASTM E 831	E-4/C (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				
Rating @ Thickness	UL94		HB	
Thickness Tested	UL94	mm	0.8 (0.031)	

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

Zytel® is a DuPont registered trademark.

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The information provided in this data sheet corresponds to our knowledge on the subject at the date of its publication. This information may be subject to revision as new knowledge and experience becomes available. The data provided fall within the normal range of product properties and relate only to the specific material designated; these data may not be valid for such material used in combination with any other materials or additives or in any process, unless expressly indicated otherwise. The data provided should not be used to establish specification limits or used alone as the basis of design; they are not intended to substitute for any testing you may need to conduct to determine for yourself the suitability of a specific material for your particular purposes. Since DuPont cannot anticipate all variations in actual end-use conditions DuPont makes no warranties and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent rights. Caution: Do not use this product in medical applications involving permanent implantation in the human body. For other medical applications see "DuPont Medical Caution Statement", H-51459 or H-50102.

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Product Information

Zytel® ST801 NC010

Property	Test Method	Units	Value	
			DAM	50%RH
Other				
Specific Gravity	ASTM D 792	g/cm3 mg	1.08	7-8
Density	ASTM D 792		1.08	
Taber Abrasion	ASTM D 1044			
CS-17 Wheel, 1kg, 1000 cycles		5-6		
Water Absorption	ASTM D 570	%		
Immersion 24h			1.2	
Saturation			6.7	
Mold Shrinkage		%		
Flow, 3.2mm (0.126in)			1.8	
Processing				
Melt Temperature Range		°C (°F)	288-293 (550-560)	
Mold Temperature Range		°C (°F)	38-93 (100-200)	
Processing Moisture Content		%	<0.20	

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