

Product Information



Zytel®

nylon resin

Zytel® 101L NC010

Nylon Resin

Zytel® 101L NC010 is a lubricated molding grade PA 66 resin.

Property	Test Method	Units	Value	
			DAM	50%RH
Mechanical				
Tensile Strength	ASTM D 638	MPa (kpsi)	83 (12.0)	77 (11.2)
Tensile Strength at Yield	ASTM D 638	MPa (kpsi)	83 (12.0)	58 (8.5)
Elongation at Yield	ASTM D 638	%	5	25
Elongation at Break	ASTM D 638	%	60	>300
Poisson's Ratio			0.41	
Flexural Modulus	ASTM D 790	MPa (kpsi)	2830 (410)	1210 (175)
Izod Impact	ASTM D 256	J/m (ft lb/in)	53 (1.0)	112 (2.1)
Thermal				
Heat Deflection Temperature 0.45MPa (66psi)	ASTM D 648	°C (°F)	210 (410)	
1.8MPa (264psi)			65 (149)	
CLTE, Parallel	ASTM D 696	E-4/C (E-4/F)	0.7 (0.39)	
Melting Point	ASTM D 3418	°C (°F)	262 (504)	
Electrical				
Volume Resistivity	ASTM D 257	ohm cm	1 E15	1 E13
Dielectric Constant	ASTM D 150			
1E2 Hz			4.0	8.0
1E3 Hz			3.9	7.0
1E6 Hz			3.6	4.6
Dissipation Factor	ASTM D 150			
1E2 Hz			0.01	0.20
1E3 Hz			0.02	0.20
1E6 Hz			0.02	0.10
Flammability				
Rating @ Thickness	UL94		V-2	
Thickness Tested	UL94	mm	0.71	

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.

960531/991026

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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Zytel® 101L NC010

Property	Test Method	Units	Value	
			DAM	50%RH
Other				
Specific Gravity	ASTM D 792		1.14	
Hardness, Rockwell	ASTM D 785			
		Scale M	79	59
Scale R			121	108
Taber Abrasion	ASTM D 1044	mg		
CS-17 Wheel, 1kg, 1000 cycles				7
Water Absorption	ASTM D 570	%		
Immersion 24h			1.2	
Saturation			8.5	
Mold Shrinkage		%		
Flow, 3.2mm (0.126in)			1.5	
Processing				
Melt Temperature Range		°C (°F)	280-305 (535-580)	
Mold Temperature Range		°C (°F)	40-95 (100-200)	
Processing Moisture Content		%	<0.2	

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QMFZ2 Component - Plastics

Friday, October 24, 2003

E41938

E I DUPONT DE NEMOURS & CO INC

ENGINEERING POLYMERS CHESTNUT RUN PLAZA PO BOX 80713 WILMINGTON DE 19880

Material Designation: **101(+)(f1), 101F(+)(f1), 101L(+)(f1), E101(+)(f1), E101L(f1), 132F(+)(f1), 135F(+)(f1)**

Product Description: Polyamide 66 (PA66), designated "Zytel" furnished as pellets.

Color	Min. Thick. (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str	IEC GWIT	IEC GWFI
ALL	0.71	V-2	4	0	130	75	85	725	960
	1.5	V-2	3	0	130	75	85	750	850
	3.0	V-2	2	0	130	75	85	800	950
	6.0	V-2	2	0	130	75	85	-	-

CTI: 0

HVTR: 0

D495: 6

IEC Ball Pressure (°C): -

Dielectric Strength (kV/mm): 13

Volume Resistivity (10^xohm-cm): 14

Dimensional Stability(%): -

ISO Tensile Strength (MPa): -

ISO Flexural Strength (MPa): -

ISO Heat Deflection (°C): -

ISO Tensile Impact (kJ/m²): -

ISO Izod Impact (kJ/m²): -

ISO Charpy Impact (kJ/m²): -

(+) Virgin and regrind up to 50% by weight inclusive, have the same basic material characteristics.

(f1) Suitable for outdoor use with respect to exposure to Ultraviolet Light, Water Exposure and Immersion in accordance with UL 746C.

NOTE (1) Material designations that are color pigmented may be followed by suffix letters and numbers. (2) Material designations may be prefixed by "ZYT" or "MIN" or "ZEN" or "DEL" or "CRA" or "RYN".

Report Date: 7/29/1996

Underwriters Laboratories Inc®

UL94 small-scale test data does not pertain to building materials, furnishings and related contents. UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in components and parts of end-product devices and appliances, where the acceptability of the combination is determined by ULI.