

# Zytel®

nylon resin

## Zytel® 101F NC010

### Lubricated Nylon Resin

Zytel® 101F NC010 is an internally lubricated PA 66 resin that has been developed for fast cycles and high productivity.

#### Property Test Method Units Value

##### DAM 50%RH

##### Mechanical

Tensile Strength ASTM D 638 MPa (kpsi) 83 (12.0) 64 (9.3)

Tensile Strength at Yield ASTM D 638 MPa (kpsi) 83 (12.0)

Elongation at Break ASTM D 638 % 50 >300

Elongation at Yield ASTM D 638 % 4

Poisson's Ratio 0.4

Flexural Modulus ASTM D 790 MPa (kpsi) 2800 (410) 1210 (175)

Notched Izod Impact ASTM D 256 J/m (ft lb/in) 53 (1.0) 105 (2)

##### Thermal

Heat Deflection Temperature ASTM D648 °C (°F)

0.45MPa (66psi) 210 (410)

1.8MPa (264psi) 65 (149)

CLTE, Flow ASTM D 696 E-4/K (E-4/F) 0.7 (0.4)

Melting Point ASTM D 3418 °C (°F) 262 (504)

##### Electrical

Surface Resistivity ASTM D 257 ohm 1 E14

Volume Resistivity ASTM D 257 ohm cm 1 E15

Dielectric Strength, Short Time ASTM D 149 kV/mm (V/mil)

3.2mm (0.125in) 16.5 (420)

1.6mm (0.063in) 23.2 (590)

Dielectric Constant ASTM D 150

1E2 Hz 4.1

1E3 Hz 4.0

1E6 Hz 3.7

Dissipation Factor ASTM D 150

1E2 Hz 0.01

1E3 Hz 0.02

1E6 Hz 0.02

## **Flammability**

UL94 Rating at Min. Thickness UL94 V-2

UL94 Min. Thickness Tested UL94 mm (in) 0.71 (0.028)

Mechanical properties measured at 23°C (73°F) unless otherwise stated.

Contact DuPont for MSDS, general guides and/or additional information about ventilation, handling, purging, drying, etc.

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The data listed here fall within the normal range of product properties but they should not be used to established specification limits nor used alone as the basis of design.

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CAUTION: Do not use in medical applications involving permanent implantation in the human body.

For other medical applications, see "DuPont Medical Caution Statement", H-50102.

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**E I DUPONT DE NEMOURS & CO INC**

DUPONT POLYMERS, ENGINEERING POLYMERS

NYLON RESINS PO BOX 80713, CHESTNUT RUN PLAZA WILMINGTON DE 19880 Material

Designation: **101(f1)+, 101F(f1)+, 101L(f1)+, E101(f1)+, E101L(f1), 132F(f1)+, 133L(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 GWFT
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 BP:-		

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

+ - Virgin and Re grind from 1% to 50% by weight inclusive, have the same basic material characteristics.

NOTE - (1) Material designations that are color pigmented may be followed by suffix letters and numbers.

Report Date: 07/29/1996

**Underwriters Laboratories Inc ®**

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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.