



# 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      |
| <b>Mechanical</b>                              |             |                |            |            |
| 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 Yield                            | ASTM D 638  | %              | 4          |            |
| Elongation at Break                            | ASTM D 638  | %              | 50         | >300       |
| Poisson's Ratio                                |             |                | 0.4        |            |
| Flexural Modulus                               | ASTM D 790  | MPa (kpsi)     | 2800 (410) | 1210 (175) |
| Izod Impact                                    | ASTM D 256  | J/m (ft lb/in) | 53 (1.0)   | 105 (2)    |
| <b>Thermal</b>                                 |             |                |            |            |
| Heat Deflection Temperature<br>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)  |            |
| <b>Electrical</b>                              |             |                |            |            |
| 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)  | 23.2 (590) |            |
|  |             |                | 16.5 (420) |            |
| Dielectric Constant                            | ASTM D 150  |                | 4.1        |            |
| 1E2 Hz   |             | 4.0            |            |            |
| 1E3 Hz   |             | 3.7            |            |            |
| 1E6 Hz   |             |                |            |            |
| Dissipation Factor                             | ASTM D 150  |                | 0.01       |            |
|  |             |                | 0.02       |            |
|  |             |                | 0.02       |            |

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.

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# Product Information

## Zytel® 101F NC010

| Property                    | Test Method | Units             | Value             |       |
|-----------------------------|-------------|-------------------|-------------------|-------|
|                             |             |                   | DAM               | 50%RH |
| <b>Flammability</b>         |             |                   |                   |       |
| Rating @ Thickness          | UL94        |                   | V-2               |       |
| Thickness Tested            | UL94        | mm                | 0.7               |       |
| <b>Other</b>                |             |                   |                   |       |
| Specific Gravity            | ASTM D 792  |                   | 1.14              |       |
| Density                     | ASTM D 792  | g/cm <sup>3</sup> | 1.14              |       |
| Water Absorption            | ASTM D 570  | %                 |                   |       |
| Immersion 24h               |             |                   | 1.2               |       |
| Saturation                  |             |                   | 8.5               |       |
| Mold Shrinkage              |             | %                 |                   |       |
| Flow, 3.2mm (0.126in)       |             |                   | 1.5               |       |
| <b>Processing</b>           |             |                   |                   |       |
| 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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