

**Product Texts**

Common features of Zytel® nylon resin include mechanical and physical properties such as high mechanical strength, excellent balance of stiffness and toughness, good high temperature performance, good electrical and flammability properties, good abrasion and chemical resistance. In addition, Zytel® nylon resins are available in different modified and reinforced grades to create a wide range of products with tailored properties for specific processes and end-uses. Zytel® nylon resin, including most flame retardant grades, offer the ability to be coloured.

The good melt stability of Zytel® nylon resin normally enables the recycling of properly handled production waste. If recycling is not possible, we recommend, as the preferred option, incineration with energy recovery (-31kJ/g of base polymer) in appropriately equipped installations. For disposal, local regulations have to be observed.

Zytel® nylon resin typically is used in demanding applications in the automotive, furniture, domestic appliances, sporting goods and construction industry.

**Zytel® 70G35EF NC010 is a 35% glass reinforced polyamide 66 developed for electrical and electronics applications.**

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Molding shrinkage, parallel	<b>0.4 / *</b>	%	ISO 294-4, 2577
<sup>[C]</sup> Molding shrinkage, normal	<b>1.0 / *</b>	%	ISO 294-4, 2577
<sup>[C]</sup> Density of melt	<b>1240</b>	kg/m <sup>3</sup>	-
<sup>[C]</sup> Thermal conductivity of melt	<b>0.24</b>	W/(m K)	-
<sup>[C]</sup> Spec. heat capacity of melt	<b>2130</b>	J/(kg K)	-
<sup>[C]</sup> Ejection temperature	<b>210</b>	°C	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	<b>11000 / 8500</b>	MPa	ISO 527
<sup>[C]</sup> Stress at break	<b>200 / 140</b>	MPa	ISO 527
<sup>[C]</sup> Strain at break	<b>3.5 / 4.6</b>	%	ISO 527
<sup>[C]</sup> Tensile creep modulus, 1h	<b>* / 8500</b>	MPa	ISO 899-1
<sup>[C]</sup> Tensile creep modulus, 1000h	<b>* / 6000</b>	MPa	ISO 899-1
<sup>[C]</sup> Charpy impact strength, +23°C	<b>90 / 100</b>	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	<b>80 / 80</b>	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	<b>14 / 18</b>	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	<b>11 / 10</b>	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Puncture energy, +23°C	<b>6 / -</b>	J	ISO 6603-2

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melting temperature, 10°C/min	<b>260 / *</b>	°C	ISO 11357-1/-3
<sup>[C]</sup> Glass transition temperature, 10°C/min	<b>70 / *</b>	°C	ISO 11357-1/-2
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	<b>250 / *</b>	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 8.00 MPa	<b>110 / *</b>	°C	ISO 75-1/-2
<sup>[C]</sup> Vicat softening temperature, B	<b>255 / *</b>	°C	ISO 306
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	<b>14 / *</b>	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	<b>85 / *</b>	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Burning Behav. at 1.5 mm nom. thickn.	<b>HB / *</b>	class	IEC 60695-11-10
Thickness tested	<b>1.5 / *</b>	mm	-
Yellow Card available	<b>yes / *</b>	-	-
<sup>[C]</sup> Burning Behav. at thickness h	<b>HB / *</b>	class	IEC 60695-11-10
Thickness tested	<b>0.8 / *</b>	mm	-
Yellow Card available	<b>yes / *</b>	-	-
<sup>[C]</sup> Burning rate, FMVSS, Thickness 1 mm	<b>26</b>	mm/min	ISO 3795 (FMVSS 302)
<sup>[C]</sup> Oxygen index	<b>24 / *</b>	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Relative permittivity, 1MHz	4.1 / 4.7	-	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 1MHz	140 / 620	E-4	IEC 62631-2-1
<sup>[C]</sup> Volume resistivity	>1E13 / 1E9	Ohm*m	IEC 62631-3-1
<sup>[C]</sup> Electric strength	36 / 31	kV/mm	IEC 60243-1
<sup>[C]</sup> Comparative tracking index	575 / -	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
<sup>[C]</sup> Water absorption	5.5 / *	%	Sim. to ISO 62
<sup>[C]</sup> Humidity absorption	1.7 / *	%	Sim. to ISO 62
<sup>[C]</sup> Density	1400 / -	kg/m <sup>3</sup>	ISO 1183

[C]: CAMPUS

Material specific properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Viscosity number	143 / *	cm <sup>3</sup> /g	ISO 307, 1157, 1628

[C]: CAMPUS

## Characteristics

### Processing

Injection Molding

### Delivery form

Pellets, Natural Color

### Additives

Release agent

### Special Characteristics

Heat stabilized or stable to heat

### Applications

Electrical and Electronical

### Regional Availability

North America, Europe, Asia Pacific, South and Central America