

## 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® FR7026V0F NC010 is an unreinforced, flame retardant, heat stabilized, polyamide 66 resin for injection molding. It does not contain elemental phosphorous or heavy metals and uses an halogen free flame retardant package. Non-Chlorine & Non-Bromine Material. Compliant with UL 746H/C-IC**

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Molding shrinkage, parallel	0.9 / *	%	ISO 294-4, 2577
<sup>[C]</sup> Molding shrinkage, normal	1.0 / *	%	ISO 294-4, 2577
<sup>[C]</sup> Density of melt	1030	kg/m <sup>3</sup>	-
<sup>[C]</sup> Thermal conductivity of melt	0.17	W/(m K)	-
<sup>[C]</sup> Spec. heat capacity of melt	2590	J/(kg K)	-
<sup>[C]</sup> Ejection temperature	210	°C	-
<b>ASTM Data</b>			
Mold Shrinkage, MD	0.008	mm/mm	ASTM D 955
Mold Shrinkage, TD	0.008	mm/mm	ASTM D 955

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	3700 / 2000	MPa	ISO 527
<sup>[C]</sup> Yield stress	* / 55	MPa	ISO 527
<sup>[C]</sup> Yield strain	* / 20	%	ISO 527
<sup>[C]</sup> Nominal strain at break	* / 30	%	ISO 527
<sup>[C]</sup> Stress at break	80 / *	MPa	ISO 527
<sup>[C]</sup> Strain at break	7 / *	%	ISO 527
<sup>[C]</sup> Charpy impact strength, +23°C	80 / 110	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	3.5 / 7	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	3 / 2	kJ/m <sup>2</sup>	ISO 179/1eA
<b>ASTM Data</b>			
Tensile Strength	89.6 / -	MPa	ASTM D 638
Elongation at Break	14 / -	%	ASTM D 638
Flexural Modulus	3450 / -	MPa	ASTM D 790
Izod Impact notched, 1/8 in	43 / -	J/m	ASTM D 256

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melting temperature, 10°C/min	260 / *	°C	ISO 11357-1/-3
<sup>[C]</sup> Glass transition temperature, 10°C/min	80 / *	°C	ISO 11357-1/-2
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	80 / *	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	230 / *	°C	ISO 75-1/-2
<sup>[C]</sup> Burning Behav. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	-
Yellow Card available	yes / *	-	-
<sup>[C]</sup> Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.4 / *	mm	-

Yellow Card available	yes / *	-	-
<sup>[C]</sup> Oxygen index	39 / *	%	ISO 4589-1/-2
<b>ASTM Data</b>			
UL 94 Flame rating	V-0	-	UL 94
Thickness tested	1.5	mm	-
DTUL @ 66 psi	230	°C	ASTM D 648
DTUL @ 264 psi	70	°C	ASTM D 648
Melting Temperature	264	°C	ASTM D 3418

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Surface resistivity	* / >1E15	Ohm	IEC 62631-3-2
<sup>[C]</sup> Electric strength	31 / 30	kV/mm	IEC 60243-1
<sup>[C]</sup> Comparative tracking index	600 / -	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
<sup>[C]</sup> Water absorption	8 / *	%	Sim. to ISO 62
<sup>[C]</sup> Humidity absorption	2.5 / *	%	Sim. to ISO 62
<sup>[C]</sup> Density	1160 / -	kg/m <sup>3</sup>	ISO 1183
Density	1150	kg/m <sup>3</sup>	ASTM D 792

[C]: CAMPUS

Material specific properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Viscosity number	160 / *	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

Flame retardant, Halogen-free, Phosphorus-free, Heat stabilized or stable to heat

### Chemical Resistance

General Chemical Resistance

### Applications

Automotive

### Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa