

## 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® FR7025V0F NC010 is an Unreinforced, Flame Retardant, Non-Halogenated Polyamide 66 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> 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	10 / *	%	ISO 527
<sup>[C]</sup> Charpy impact strength, +23°C	135 / -	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	3.7 / -	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	3 / -	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	84 / *	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	235 / *	°C	ISO 75-1/-2

**Zytel® FR7025V0F NC010**

PA66 FR(30)

Celanese

<sup>[C]</sup> Burning Behav. at 1.5 mm nom. thickn.	<b>V-0 / *</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>V-0 / *</b>	class	IEC 60695-11-10
Thickness tested	<b>0.8 / *</b>	mm	-
Yellow Card available	<b>yes / *</b>	-	-
<sup>[C]</sup> Oxygen index	<b>39 / *</b>	%	ISO 4589-1/-2
<b>ASTM Data</b>			
UL 94 Flame rating	<b>V-0</b>	-	UL 94
Thickness tested	<b>1.5</b>	mm	-
DTUL @ 66 psi	<b>230</b>	°C	ASTM D 648
DTUL @ 264 psi	<b>70</b>	°C	ASTM D 648
Melting Temperature	<b>264</b>	°C	ASTM D 3418

[C]: CAMPUS

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

[C]: CAMPUS

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

[C]: CAMPUS

**Characteristics****Processing**

Injection Molding

**Delivery form**

Pellets, Natural Color

**Additives**

Lubricants, Release agent

**Special Characteristics**

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

**Features**

Nucleated, Weldable

**Applications**

Electrical and Electronical

**Regional Availability**

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