

## 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 (-31 kJ/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® 70K20HSL NC010 is a heat stabilized PA66 resin modified with 20% Kevlar aramid fiber for excellent wear resistance.**

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	1.4 / *	%	ISO 294-4, 2577
<sup>[C]</sup> Ejection temperature	210	°C	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	5300 / 3500	MPa	ISO 527
<sup>[C]</sup> Stress at break	110 / 85	MPa	ISO 527
<sup>[C]</sup> Strain at break	5.2 / 7.2	%	ISO 527
<sup>[C]</sup> Charpy impact strength, +23°C	50 / 65	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	40 / -	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	6 / 9	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	5 / -	kJ/m <sup>2</sup>	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melting temperature, 10°C/min	263 / *	°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	222 / *	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	255 / *	°C	ISO 75-1/-2
<sup>[C]</sup> Vicat softening temperature, B	240 / *	°C	ISO 306
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	47 / *	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	75 / *	E-6/K	ISO 11359-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Dissipation factor, 100Hz	140 / -	E-4	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 1MHz	140 / -	E-4	IEC 62631-2-1
<sup>[C]</sup> Volume resistivity	1E9 / -	Ohm*m	IEC 62631-3-1
<sup>[C]</sup> Surface resistivity	* / >1E15	Ohm	IEC 62631-3-2
<sup>[C]</sup> Electric strength	23 / -	kV/mm	IEC 60243-1

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
<sup>[C]</sup> Water absorption	6.8 / *	%	Sim. to ISO 62
<sup>[C]</sup> Humidity absorption	2.7 / *	%	Sim. to ISO 62
<sup>[C]</sup> Density	1190 / -	kg/m <sup>3</sup>	ISO 1183

[C]: CAMPUS

**Characteristics**

**Processing**

Injection Molding

**Delivery form**

Pellets, Natural Color

**Additives**

Lubricants, Release agent

**Special Characteristics**

Heat stabilized or stable to heat

**Regional Availability**

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