

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® ST801AHS NC010 is a Super Tough, high performance polyamide 66 resin. It offers outstanding molding performance in injection molding applications.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	1.8 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.4 / *	%	ISO 294-4, 2577
^[C] Ejection temperature	190	°C	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	2000 / 900	MPa	ISO 527
^[C] Yield stress	52 / *	MPa	ISO 527
^[C] Yield strain	4 / *	%	ISO 527
^[C] Nominal strain at break	50 / *	%	ISO 527
^[C] Stress at 50% strain	* / 45	MPa	ISO 527
^[C] Strain at break	* / >50	%	ISO 527
^[C] Charpy impact strength, +23°C	N / N	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	80 / 110	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	20 / 17	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	262 / *	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	75 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	62 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	157 / *	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	90 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	120 / *	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	-
Yellow Card available	yes / *	-	-
^[C] Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	-
Yellow Card available	yes / *	-	-
^[C] Burning rate, FMVSS, Thickness 1 mm	24	mm/min	ISO 3795 (FMVSS 302)

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	3.5 / 6.2	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	3.3 / 3.6	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	50 / 1770	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	110 / 400	E-4	IEC 62631-2-1

^[C] Volume resistivity	>1E13 / 2.7E10	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	* / 5E12	Ohm	IEC 62631-3-2
^[C] Electric strength	24 / 24	kV/mm	IEC 60243-1
^[C] Comparative tracking index	600 / -	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	6.5 / *	%	Sim. to ISO 62
^[C] Humidity absorption	2 / *	%	Sim. to ISO 62
^[C] Density	1080 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Film Properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Strain at yield, parallel	4.4 / *	%	ISO 527-3

[C]: CAMPUS

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Viscosity number	120 / *	cm ³ /g	ISO 307, 1157, 1628

[C]: CAMPUS

Characteristics

Processing

Injection Molding

Delivery form

Pellets

Additives

Lubricants, Release agent

Special Characteristics

High impact or impact modified, Heat stabilized or stable to heat

Chemical Resistance

General Chemical Resistance

Applications

Automotive, Sports Equipment

Regional Availability

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