

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® 73G30L NC010 is a 30% glass fiber reinforced polyamide 6 resin for injection molding.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.2 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.6 / *	%	ISO 294-4, 2577
^[C] Density of melt	1200	kg/m ³	-
ASTM Data			
Mold Shrinkage, TD	0.01	mm/mm	ASTM D 955

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	10000 / 6000	MPa	ISO 527
^[C] Stress at break	180 / 120	MPa	ISO 527
^[C] Strain at break	3.5 / 6	%	ISO 527
^[C] Tensile creep modulus, 1h	* / 5500	MPa	ISO 899-1
^[C] Tensile creep modulus, 1000h	* / 4500	MPa	ISO 899-1
^[C] Charpy impact strength, +23°C	90 / 100	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	80 / 80	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	14 / 23	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	11 / 21	kJ/m ²	ISO 179/1eA

ASTM Data

Tensile Strength	178 / -	MPa	ASTM D 638
Elongation at Break	3.5 / -	%	ASTM D 638
Flexural Modulus	8820 / -	MPa	ASTM D 790
Izod Impact notched, 1/8 in	133 / -	J/m	ASTM D 256

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	221 / *	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	60 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	210 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	220 / *	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	14 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	102 / *	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	3.0 / *	mm	-
Yellow Card available	yes / *	-	-
^[C] Burning rate, FMVSS, Thickness 1 mm	25	mm/min	ISO 3795 (FMVSS 302)
^[C] Oxygen index	21 / *	%	ISO 4589-1/-2
ASTM Data			
UL 94 Flame rating	HB	-	UL 94

Zytel® 73G30L NC010

PA6-GF30

Celanese

Thickness tested	1.5	mm	-
DTUL @ 66 psi	220	°C	ASTM D 648
DTUL @ 264 psi	210	°C	ASTM D 648

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	3.8 / -	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	220 / -	E-4	IEC 62631-2-1
^[C] Volume resistivity	1E12 / -	Ohm*m	IEC 62631-3-1
^[C] Comparative tracking index	600 / -	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	6.3 / *	%	Sim. to ISO 62
^[C] Humidity absorption	2.1 / *	%	Sim. to ISO 62
^[C] Density	1360 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Viscosity number	140 / *	cm ³ /g	ISO 307, 1157, 1628

[C]: CAMPUS

Characteristics**Processing**

Injection Molding

Delivery form

Pellets, Natural Color

Additives

Lubricants, Release agent

Features

Weldable

Applications

General Purpose, Sports Equipment

Regional Availability

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