

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® 73G50HSLA BK416 is a 50% glass fiber reinforced, heat stabilized, lubricated, polyamide 6 resin for injection molding. It has an excellent surface appearance and gloss.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.1 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.7 / *	%	ISO 294-4, 2577
^[C] Density of melt	1240	kg/m ³	-
^[C] Thermal conductivity of melt	0.26	W/(m K)	-
^[C] Spec. heat capacity of melt	2050	J/(kg K)	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	16000 / 12000	MPa	ISO 527
^[C] Stress at break	230 / 150	MPa	ISO 527
^[C] Strain at break	2.2 / 4	%	ISO 527
^[C] Tensile creep modulus, 1h	* / 9500	MPa	ISO 899-1
^[C] Tensile creep modulus, 1000h	* / 7500	MPa	ISO 899-1
^[C] Charpy impact strength, +23°C	100 / 100	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	100 / 90	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	21 / 22	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	19 / 18	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	219 / *	°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	212 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	219 / *	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	215 / *	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	15 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	100 / *	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	-
^[C] Burning rate, FMVSS, Thickness 1 mm	31	mm/min	ISO 3795 (FMVSS 302)

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Surface resistivity	* / 5E12	Ohm	IEC 62631-3-2
^[C] Comparative tracking index	380 / -	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	4.5 / *	%	Sim. to ISO 62
^[C] Humidity absorption	1.6 / *	%	Sim. to ISO 62
^[C] Density	1580 / -	kg/m ³	ISO 1183
Water Absorption, Equilibrium	4.5	%	ASTM D 570

[C]: CAMPUS

Characteristics

Processing

Injection Molding

Special Characteristics

Heat stabilized or stable to heat

Delivery form

Pellets, Black

Features

High Gloss

Additives

Lubricants, Release agent

Regional Availability

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