

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® 132F NC010 is a nucleated, lubricated polyamide 66 for injection molding. It was developed for fast production cycles and high productivity applications.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.9 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.2 / *	%	ISO 294-4, 2577
^[C] Ejection temperature	190	°C	-
ASTM Data			
Mold Shrinkage, MD	0.011	mm/mm	ASTM D 955
Mold Shrinkage, TD	0.015	mm/mm	ASTM D 955

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	3400 / 1600	MPa	ISO 527
^[C] Yield stress	91 / 60	MPa	ISO 527
^[C] Yield strain	4.5 / 22	%	ISO 527
^[C] Nominal strain at break	13 / >50	%	ISO 527
^[C] Charpy impact strength, +23°C	300 / N	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	200 / -	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	4 / 8	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	3.5 / 2.5	kJ/m ²	ISO 179/1eA
ASTM Data			
Tensile Strength	90 / -	MPa	ASTM D 638
Elongation at Break	25 / -	%	ASTM D 638
Flexural Modulus	3100 / -	MPa	ASTM D 790
Rockwell Hardness	R 122 /	-	ASTM D 785
Izod Impact notched, 1/8 in	42.7 / -	J/m	ASTM D 256

[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	60 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	75 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	225 / *	°C	ISO 75-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	-
Yellow Card available	yes / *	-	-
^[C] Burning Behav. at thickness h	V-2 / *	class	IEC 60695-11-10
Thickness tested	0.7 / *	mm	-
Yellow Card available	yes / *	-	-
^[C] Oxygen index	29 / *	%	ISO 4589-1/-2
ASTM Data			
UL 94 Flame rating	V-2	-	UL 94
Thickness tested	1.5	mm	-

DTUL @ 66 psi	235	°C	ASTM D 648
DTUL @ 264 psi	70	°C	ASTM D 648
Melting Temperature	264	°C	ASTM D 3418

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ASTM Data			
Dielectric Strength, Short Time	15.4 / -	kV/mm	ASTM D 149
Dissipation Factor, 1 MHz	0.02 / -	-	ASTM D 150
Dielectric Constant, 1 MHz	3.6 / -	-	ASTM D 150
Surface Resistivity	* / 1E14	Ohm	ASTM D 257
Volume Resistivity	1E15 / -	Ohm*cm	ASTM D 257

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	8.5 / *	%	Sim. to ISO 62
[C] Humidity absorption	2.6 / *	%	Sim. to ISO 62
[C] Density	1140 / -	kg/m ³	ISO 1183
Density	1140	kg/m ³	ASTM D 792

[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	143 / *	cm ³ /g	ISO 307, 1157, 1628

[C]: CAMPUS

Characteristics

Processing

Injection Molding

Delivery form

Pellets, Natural Color

Additives

Lubricants, Release agent

Features

Nucleated, Weldable

Regional Availability

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