Zytel® 74G33W NC010

NYLON RESIN

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® 74G33W NC010 is a high gloss automotive weatherable 33% glass reinforced nylon 66 and nylon 6 comelt resin.

Product information

Resin Identification	(PA66+PA6)-GF33	ISO 1043
Part Marking Code	>(PA66+PA6)-GF33<	ISO 11469
ISO designation	ISO 16396-(PA66+PA6),GF33,M1GL1N,S14-110	

Rheological properties

	dry/cond.		
Molding shrinkage, parallel	0.3 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.9 / -	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	1.58E6 / 1.09E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	28100 / 18900[A]	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	4 / 6	%	ISO 527-1/-2
Flexural modulus	1.29E6 / -	psi	ISO 178
Charpy impact strength, 23 °C	45.2 / 47.6	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23 °C	7.61 / 8.56	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -30 °C	4.76 / 4.76	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -40 °C	5.85 / -	ftlb/in²	ISO 179/1eA

[A]: Assessed

Thermal properties

	dry/cond.		
Melting temperature, 10 °C/min	473 / *	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	437 / *	°F	ISO 75-1/-2

Flammability

FMVSS Class	B		ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<80	in/min	ISO 3795 (FMVSS 302)

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Physical/Other properties

	dry/cond.		
Density	0.0502 / -	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	176	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.2	%
Melt Temperature Optimum	554	°F
Min. melt temperature	536	°F
Max. melt temperature	572	°F
Max. screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	212	°F
Min. mold temperature	158	°F
Max. mold temperature	248	°F
Hold pressure range	7250 - 14500	psi
Hold pressure time	0.0762	s/mil
Hold Pressure Time (h is the max. wall thickness of the part in mm)	h^2+2	s
Ejection temperature	410	°F

Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
Ford	WSS-M98P13-E	
General Motors	Natural; Part Specific Approval, Please Contact Your CE Representative For More Details.	
Stellantis - Chrysler	MS.50017 / CPN-4075	Natural

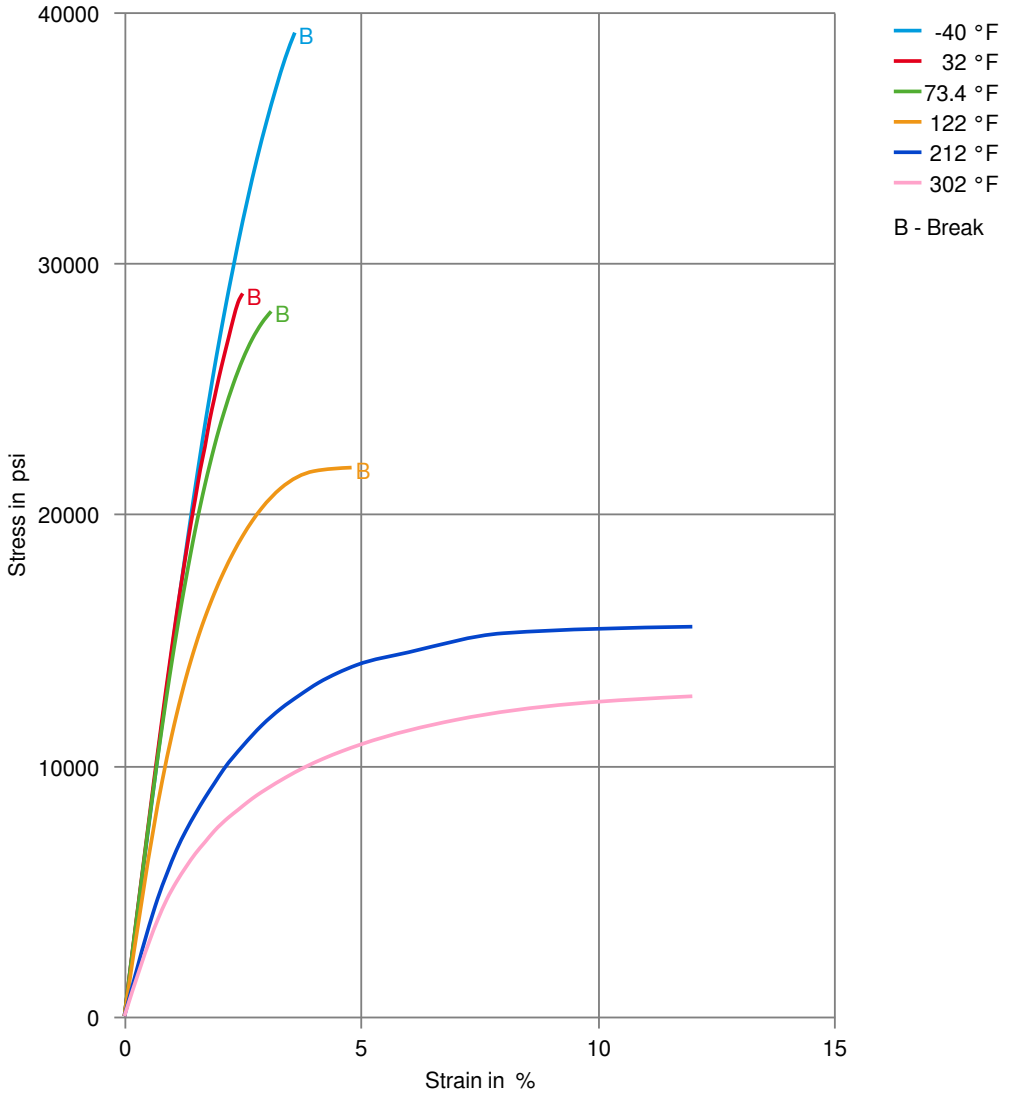
Characteristics

Processing	Injection Molding

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Stress-strain (dry)

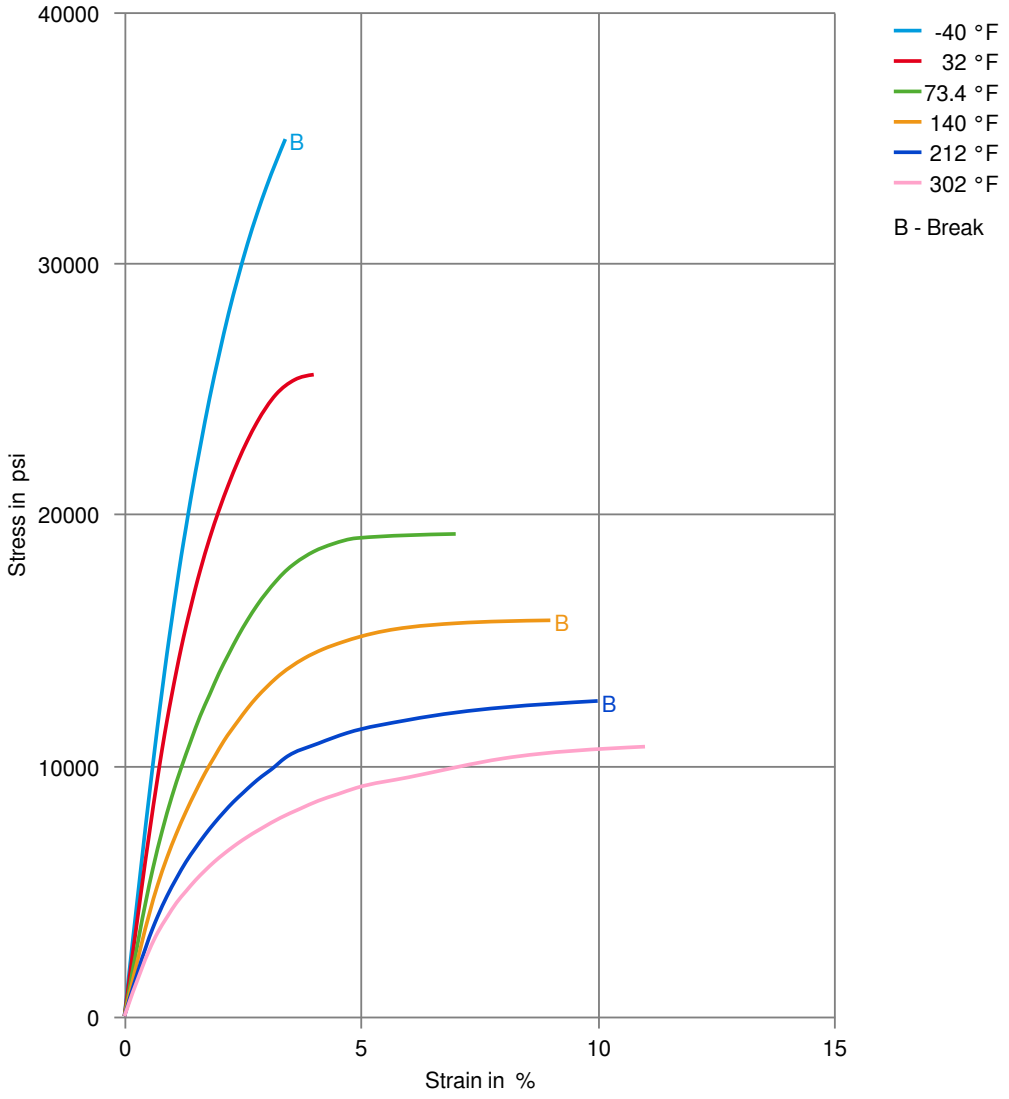


Revised: 2025-07-08 Source: Celanese Materials Database

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NYLON RESIN

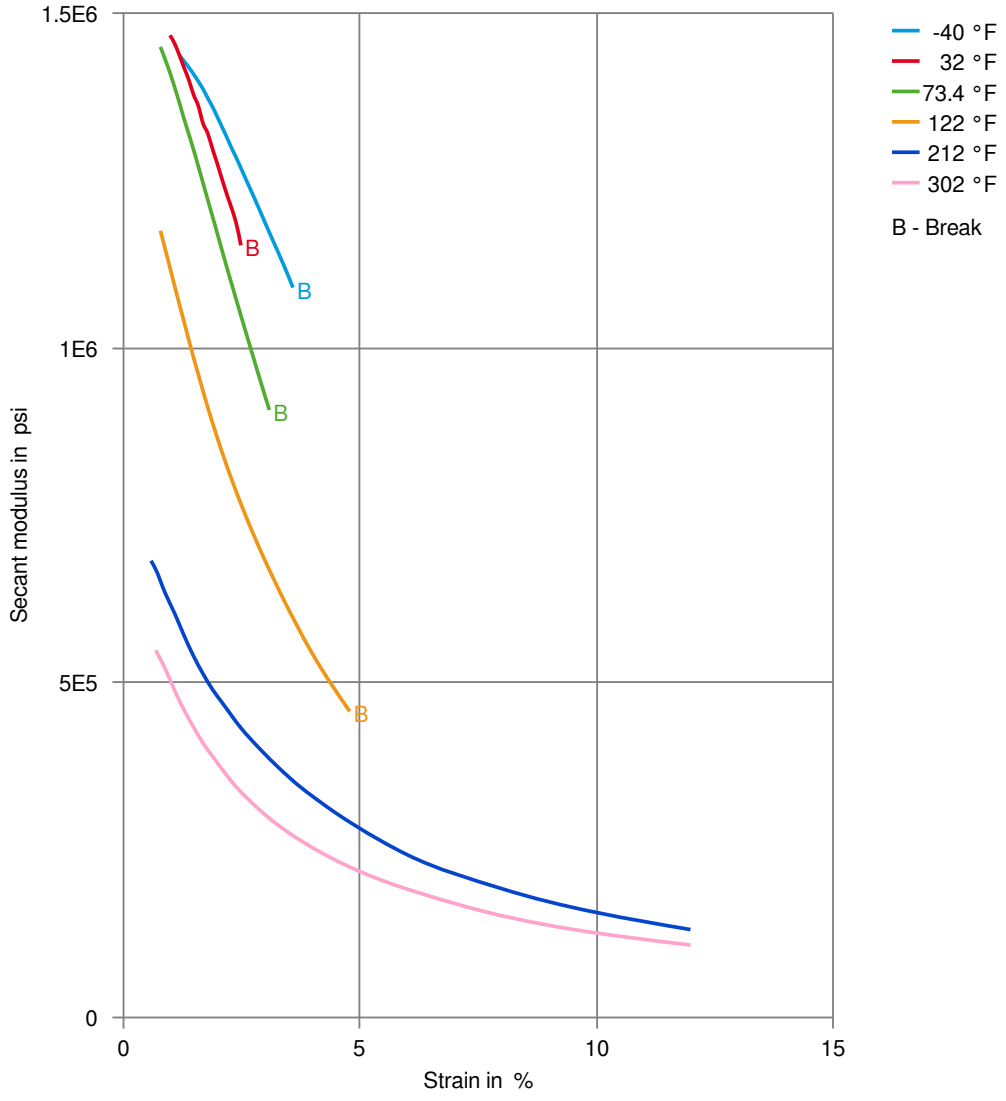
Stress-strain (cond.)



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NYLON RESIN

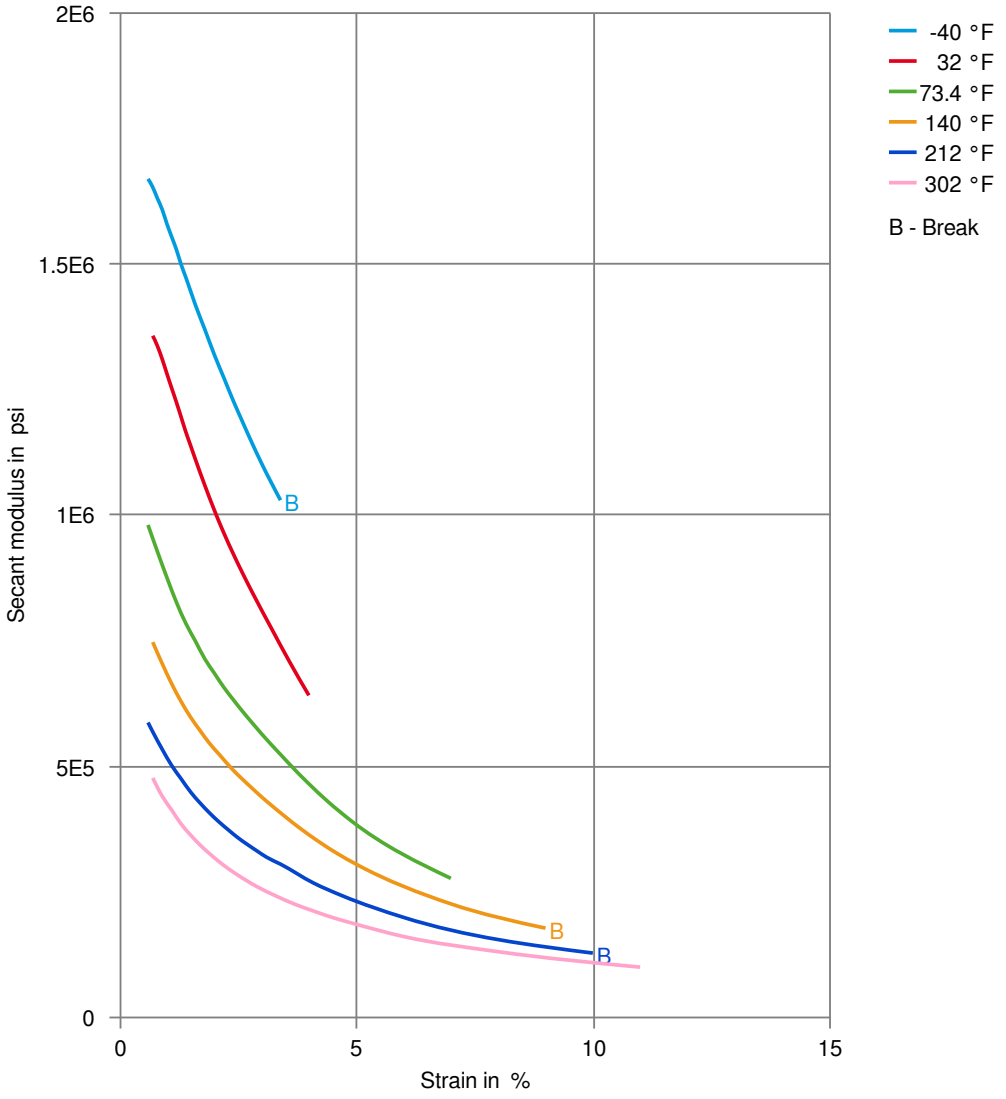
Secant modulus-strain (dry)



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Secant modulus-strain (cond.)



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