

DuPont™ Zytel® 74G33W NC010

NYLON RESIN

Product Information

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, DuPont recommends, 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	Value	Unit	Test Standard
Resin Identification	PA66+PA6-GF33	-	ISO 1043
Part Marking Code	PA66+PA6-GF33	-	ISO 11469
Rheological properties	dry / cond	Unit	Test Standard
Molding shrinkage, parallel	0.3 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.9 / -	%	ISO 294-4, 2577
Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	1.58E6 / 1.09E6	psi	ISO 527-1/-2
Stress at break	28100 / 18900	psi	ISO 527-1/-2 A
Strain at break	4 / 6	%	ISO 527-1/-2
Flexural Modulus	1.29E6 / -	psi	ISO 178
Charpy impact strength, 73°F	45.2 / 47.6	ftlb/in ²	ISO 179/1eU
Charpy notched impact strength			ISO 179/1eA
73°F	7.61 / 8.56	ftlb/in ²	
-22°F	4.76 / 4.76	ftlb/in ²	
-40°F	5.85 / -	ftlb/in ²	
A: Assessed			
Thermal properties	dry / cond	Unit	Test Standard
Melting temperature, 18°F/min	473 / *	°F	ISO 11357-1/-3
Temp. of deflection under load, 260 psi	437 / *	°F	ISO 75-1/-2
Flammability	Value	Unit	Test Standard
FMVSS Class	B	-	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<80	in/min	ISO 3795 (FMVSS 302)
Other properties	dry / cond	Unit	Test Standard
Density	1.39 / -	g/cm ³	ISO 1183
Injection	dry / cond	Unit	Test Standard
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	-
Ejection temperature	410	°F	-

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Characteristics

Processing	<ul style="list-style-type: none">• Injection Molding		
Regional Availability	<ul style="list-style-type: none">• North America• Europe	<ul style="list-style-type: none">• Asia Pacific• South and Central America	<ul style="list-style-type: none">• Near East/Africa• Global

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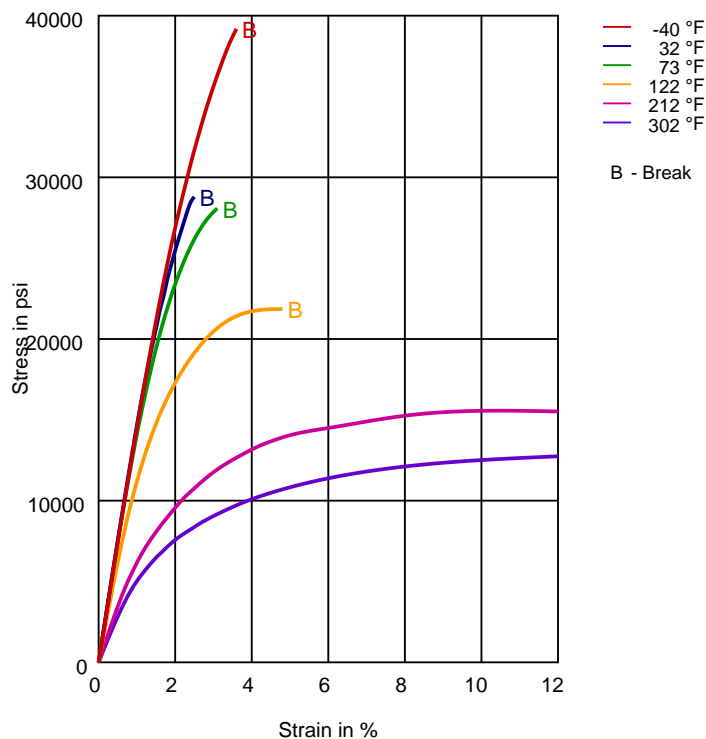


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NYLON RESIN

Diagrams

Stress-strain (dry)



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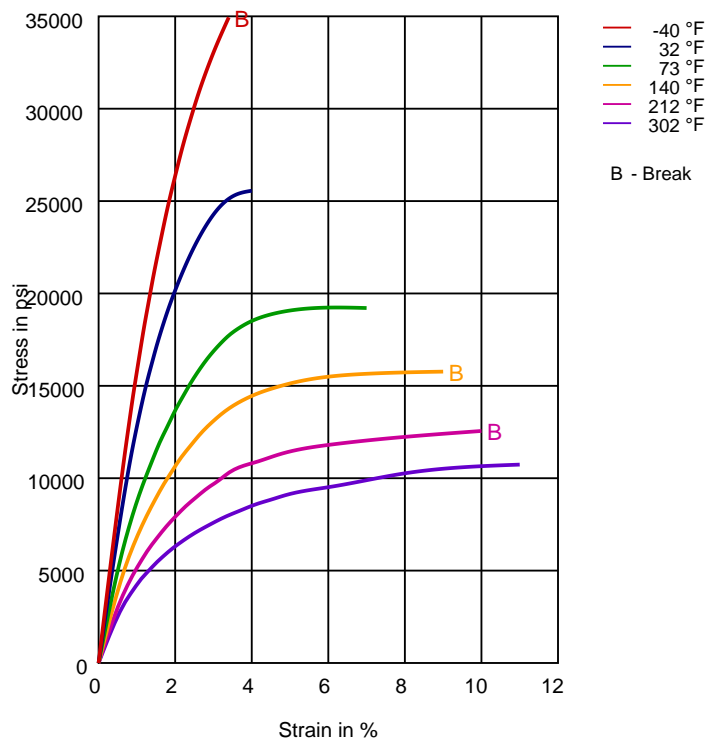


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DuPont™ Zytel® 74G33W NC010

NYLON RESIN

Stress-strain (cond.)



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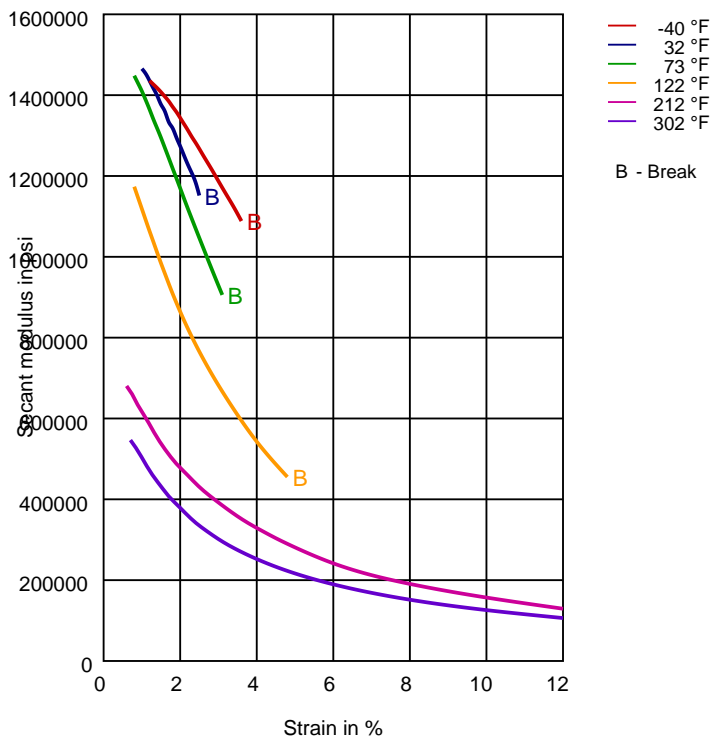


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NYLON RESIN

Secant modulus-strain (dry)



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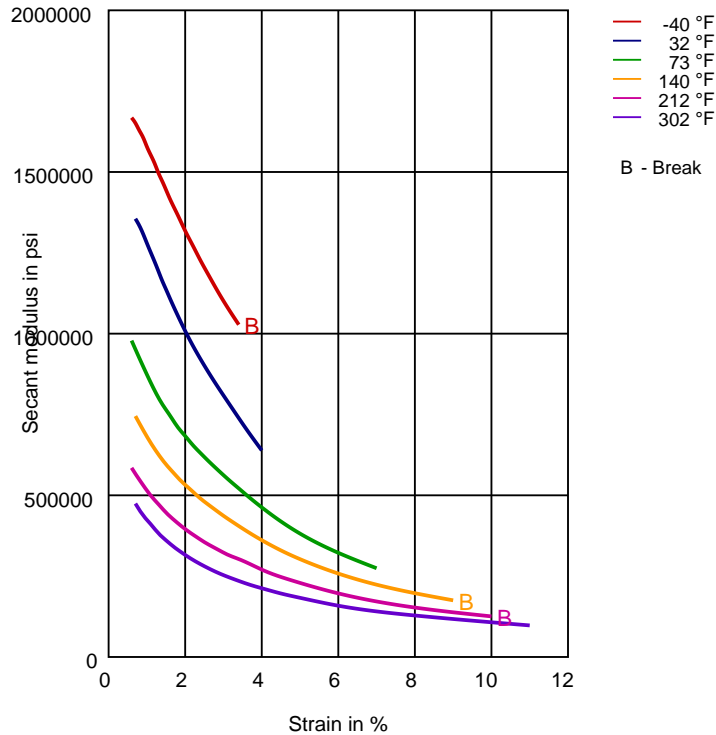
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Secant modulus-strain (cond.)



Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc. ISO Mechanical properties measured at 160 mil (Hytrel® measured at 80 mil), IEC Electrical properties measured at 80 mil, all ASTM properties measured at 120 mil, and test temperatures are 73°F unless otherwise stated.

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