

DuPont™ Zytel® HTN52G35EF BK420

HIGH PERFORMANCE POLYAMIDE RESIN

Product Information

Zytel® HTN high performance polyamide resins feature high retention of properties upon exposure to elevated temperature, to high moisture, and to harsh chemical environments. Polymer families and grades of Zytel® HTN are tailored to optimize performance as well as processability.

Typical applications with Zytel® HTN include demanding applications in the automotive, electrical and electronics, domestic appliances, and construction industries.

Zytel® HTN52G35EF BK420 is a 35% glass reinforced, heat stabilized, lubricated high performance polyamide resin that can be molded in water heated molds, developed for electrical and electronics applications. It is also a PPA resin.

General information	Value	Unit	Test Standard
Resin Identification	PA6T/66-GF35	-	ISO 1043
Part Marking Code	PA6T/66-GF35	-	ISO 11469
Part Marking Code	>PPA-GF35<	-	SAE J1344
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	12000 / -	MPa	ISO 527-1/-2
Stress at break	200 / -	MPa	ISO 527-1/-2
Strain at break	2.2 / -	%	ISO 527-1/-2
Flexural Modulus	10400 / -	MPa	ISO 178
Flexural Strength	290 / -	MPa	ISO 178
Charpy impact strength, 73°F	45 / -	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 73°F	10 / -	kJ/m ²	ISO 179/1eA
Thermal properties	dry / cond	Unit	Test Standard
Melting temperature, first heat	310 / *	°C	ISO 11357-1/-3
Temp. of deflection under load, 260 psi	285 / *	°C	ISO 75-1/-2
Thermal conductivity of melt	0.24	W/(m K)	-
Flammability	dry / cond	Unit	Test Standard
Oxygen index	23 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index, 120mil	960 / -	°C	IEC 60695-2-1/2
Glow Wire Ignition Temperature, 120mil	800 / -	°C	IEC 60695-2-1/3
FMVSS Class	B	-	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	44	mm/min	ISO 3795 (FMVSS 302)
Electrical properties	dry / cond	Unit	Test Standard
Relative permittivity			IEC 60250
100Hz	4.3 / -	-	
1MHz	4.2 / -	-	
Dissipation factor, 1MHz	147 / -	E-4	IEC 60250
Volume resistivity	>1E13 / -	Ohm*m	IEC 60093
Electric strength	31 / 30	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	-	IEC 60112
Other properties	dry / cond	Unit	Test Standard
Density	1450 / -	kg/m ³	ISO 1183
Density of melt	1100	kg/m ³	-
Injection	Value	Unit	Test Standard
Drying Recommended	yes	-	-
Drying Temperature	100	°C	-
Drying Time, Dehumidified Dryer	6 - 8	h	-
Processing Moisture Content	≤0.1	%	-
Melt Temperature Optimum	325	°C	-
Min. melt temperature	320	°C	-

To find out more, visit [DuPont Performance Polymers](#) or contact nearest DuPont location.

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Max. melt temperature	330	°C	-
Min. mold temperature	90	°C	-
Max. mold temperature	110	°C	-

Characteristics

Processing	• Injection Molding		
Delivery form	• Pellets		
Additives	• Release agent		
Special characteristics	• Heat stabilized or stable to heat		
Regional Availability	• North America • Europe	• Asia Pacific • South and Central America	• Near East/Africa • Global

Processing Texts

Injection molding

During molding, use proper protective equipment and adequate ventilation. Avoid exposure to fumes and limit the hold up time and temperature of the resin in the machine. Purge degraded resin carefully with HDPE.

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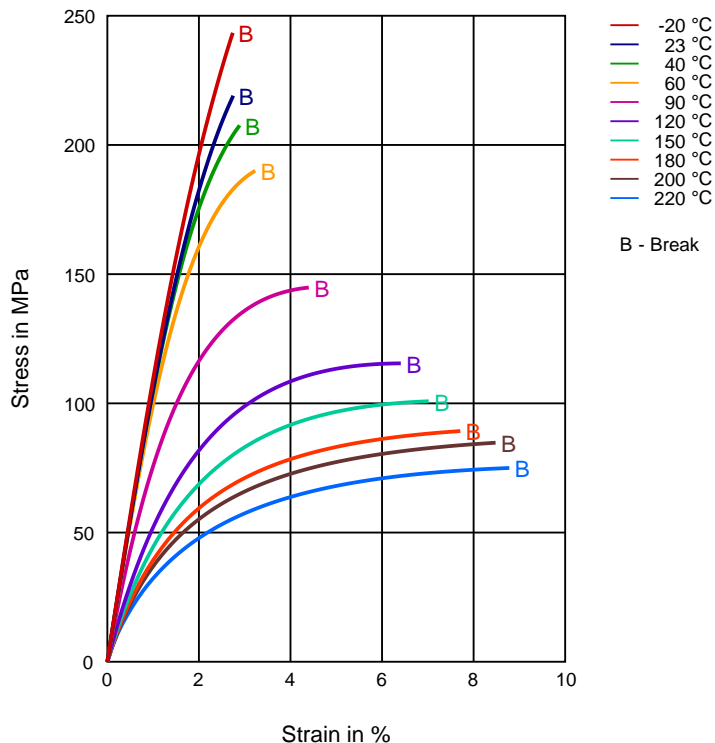


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Diagrams

Stress-strain (dry)



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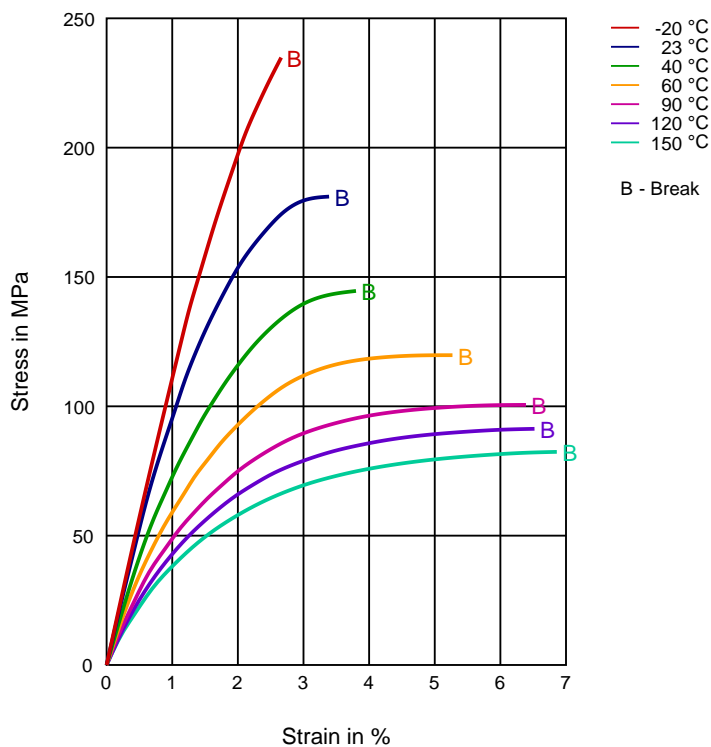
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HIGH PERFORMANCE POLYAMIDE RESIN

Stress-strain (cond.)



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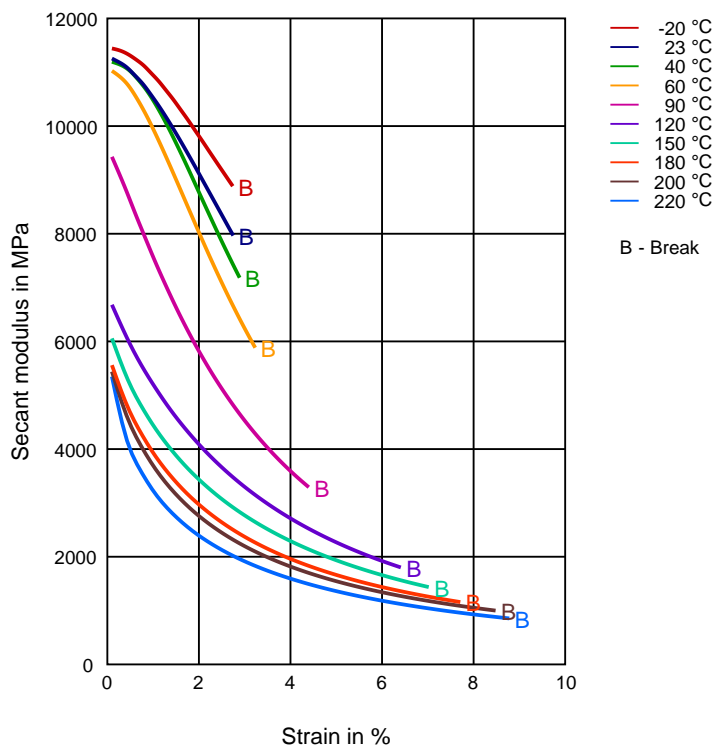
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DuPont™ Zytel® HTN52G35EF BK420

HIGH PERFORMANCE POLYAMIDE RESIN

Secant modulus-strain (dry)



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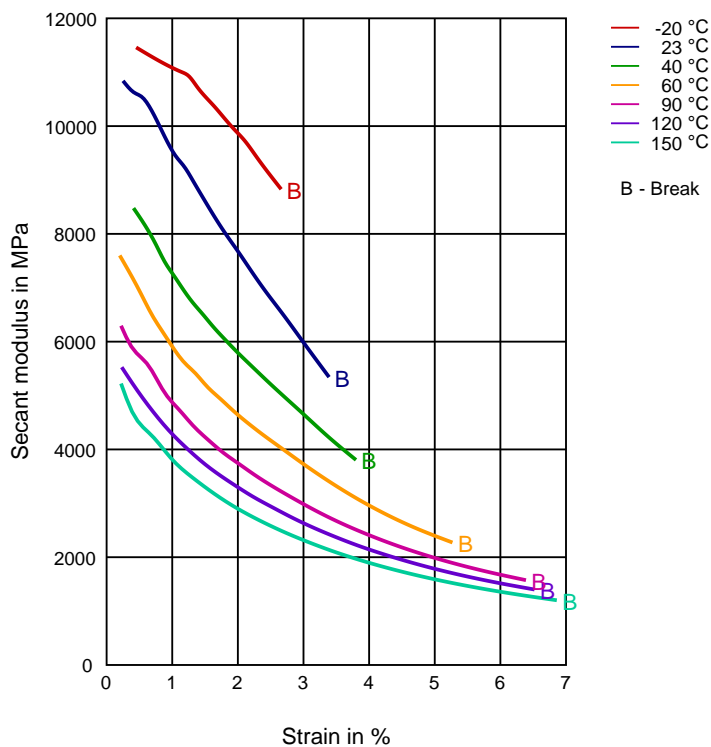
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HIGH PERFORMANCE POLYAMIDE RESIN

Secant modulus-strain (cond.)



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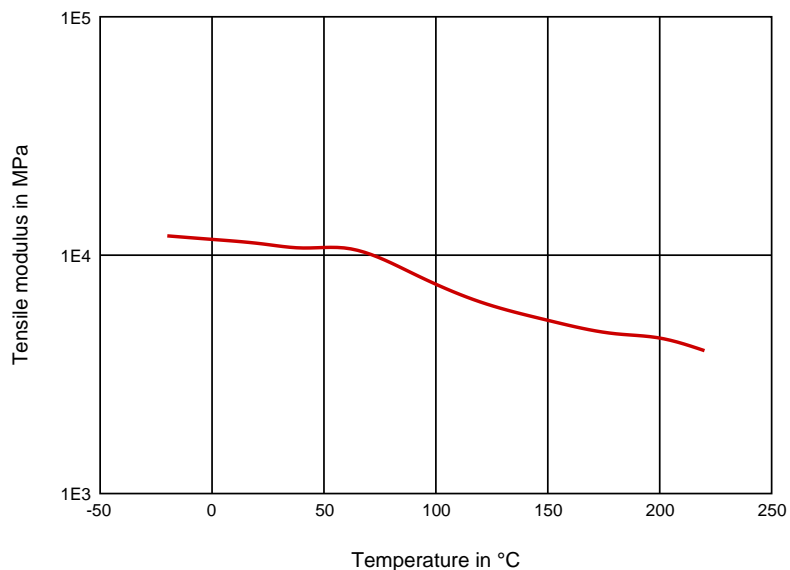
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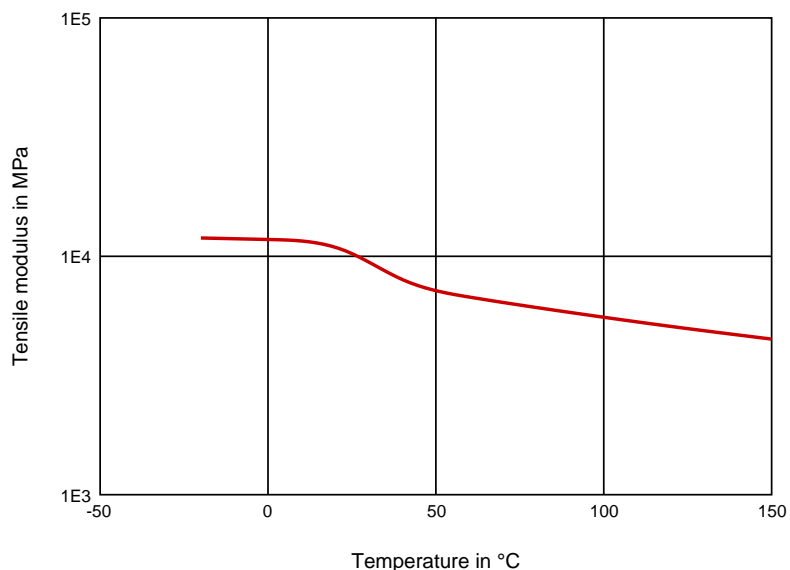
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Tensile modulus-temperature (dry)



Tensile modulus-temperature (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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