

# DuPont™ Zytel® HTN92G35DH2 BK083

## 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® HTN92G35DH2 BK083 is a 35% glass reinforced high performance polyamide resin using DuPont SHIELD Technology, with high flow and excellent retention of properties after aging at elevated temperatures in air. 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
Melt volume-flow rate	60 / *	cm <sup>3</sup> /10min	ISO 1133
Temperature	325 / *	°C	ISO 1133
Load	2.16 / *	kg	ISO 1133
Molding shrinkage, parallel	0.2 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.9 / -	%	ISO 294-4, 2577
Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	12000 / 10000	MPa	ISO 527-1/-2
Stress at break	200 / 160	MPa	ISO 527-1/-2
Strain at break	2.4 / 2.6	%	ISO 527-1/-2
Flexural Modulus	10000 / -	MPa	ISO 178
Flexural Strength	270 / -	MPa	ISO 178
Tensile creep modulus			ISO 899-1
1h	* / 10000	MPa	
1000h	* / 8500	MPa	
Charpy impact strength			ISO 179/1eU
73°F	55 / 50	kJ/m <sup>2</sup>	
-22°F	50 / 45	kJ/m <sup>2</sup>	
Charpy notched impact strength			ISO 179/1eA
73°F	10 / 10	kJ/m <sup>2</sup>	
-40°F	10 / 10	kJ/m <sup>2</sup>	
Thermal properties	dry / cond	Unit	Test Standard
Melting temperature, first heat	310 / *	°C	ISO 11357-1/-3
Temp. of deflection under load, 260 psi	283 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	19 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion			ISO 11359-1/-2
normal	63 / *	E-6/K	
Normal, -40-23°C	63 / *	E-6/K	
Parallel, -40-23°C	19 / *	E-6/K	
Flammability	Value	Unit	Test Standard
FMVSS Class	B	-	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<100	mm/min	ISO 3795 (FMVSS 302)
Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	>1E13 / 1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	* / 1E13	Ohm	IEC 62631-3-2
Electric strength	32 / -	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	-	IEC 60112
Other properties	dry / cond	Unit	Test Standard
Density	1440 / -	kg/m <sup>3</sup>	ISO 1183

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

North America

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Europe/Middle East/Africa

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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	-
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	• Europe	• Near East/Africa

### 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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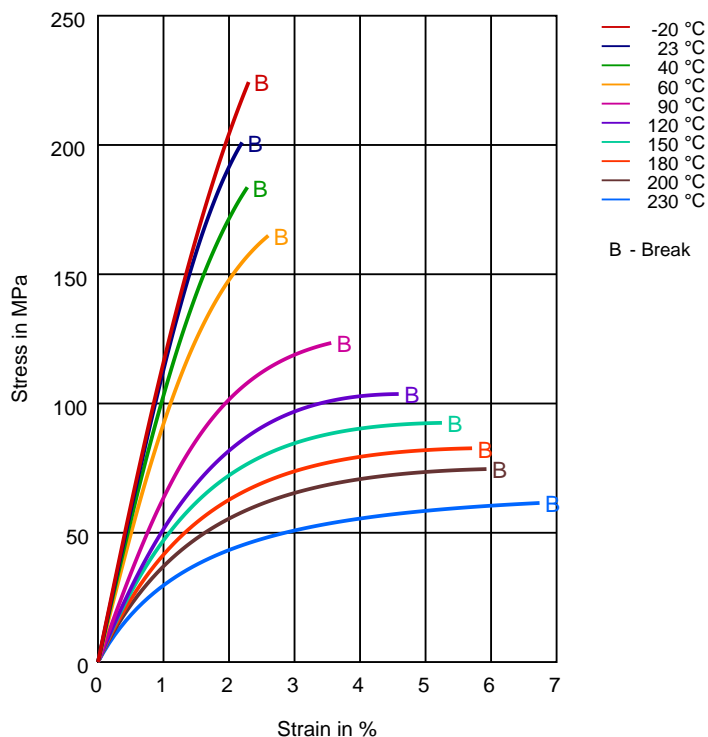


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## HIGH PERFORMANCE POLYAMIDE RESIN

Diagrams

Stress-strain (dry)



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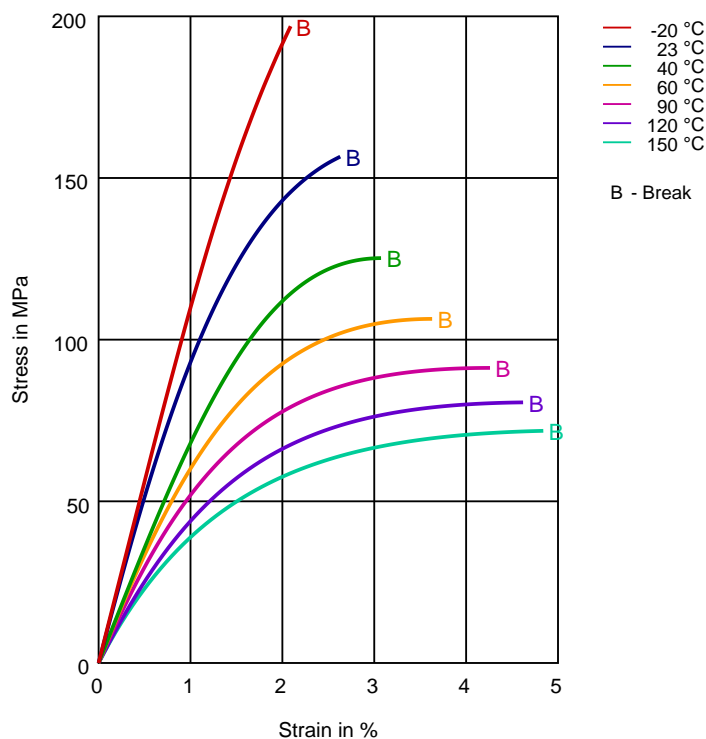
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## HIGH PERFORMANCE POLYAMIDE RESIN

Stress-strain (cond.)



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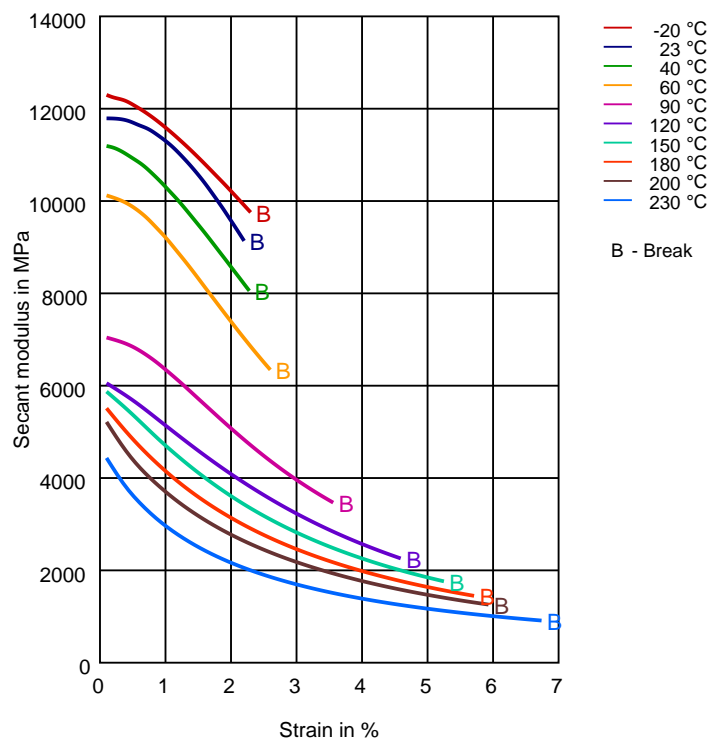
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# DuPont™ Zytel® HTN92G35DH2 BK083

## HIGH PERFORMANCE POLYAMIDE RESIN

Secant modulus-strain (dry)



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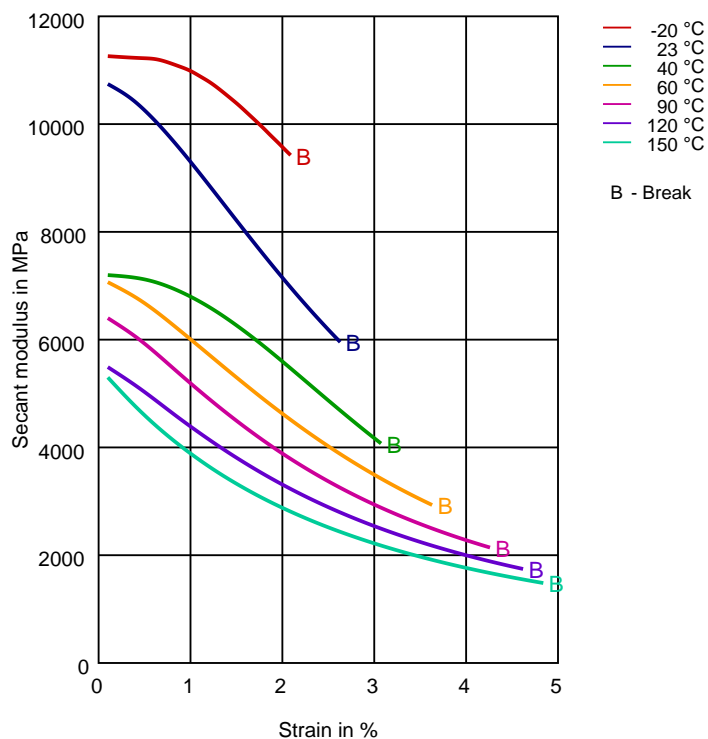
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## HIGH PERFORMANCE POLYAMIDE RESIN

Secant modulus-strain (cond.)



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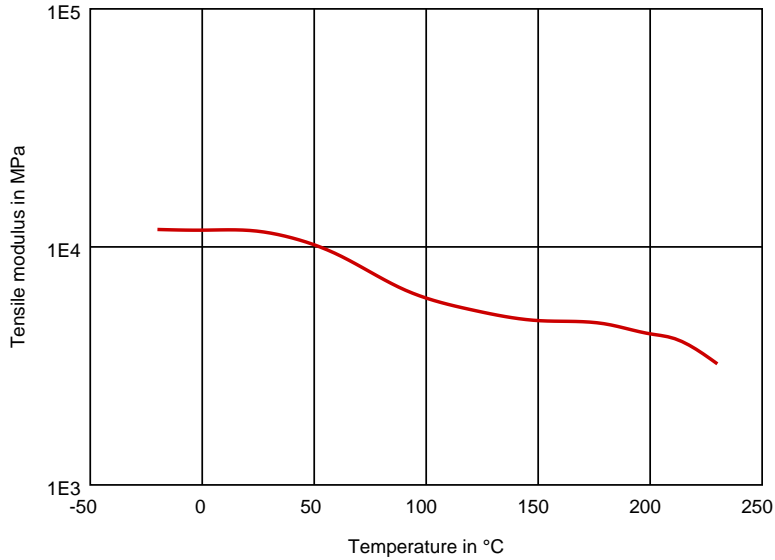
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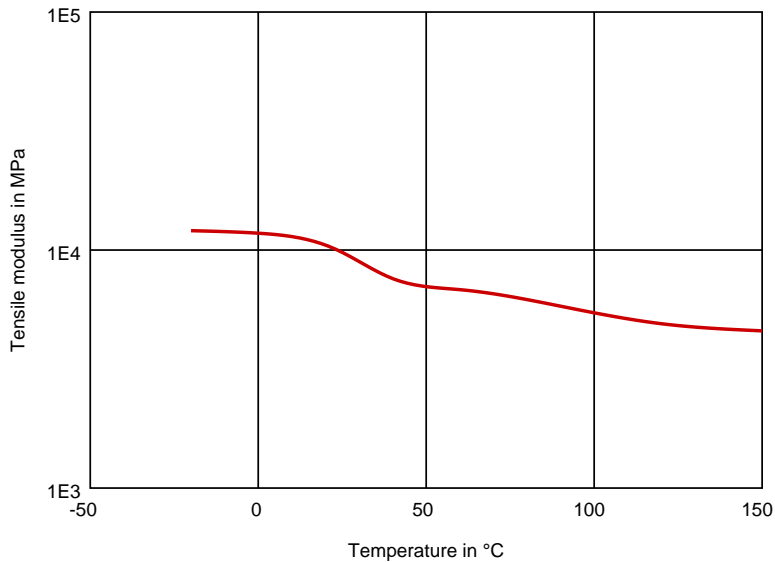
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## HIGH PERFORMANCE POLYAMIDE RESIN

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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