

# DuPont™ Zytel® HTN54G15HSLR BK031

## 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® HTN54G15HSLR BK031 is a 15% glass reinforced, toughened, heat stabilized high performance polyamide resin. It is also a PPA resin.**

General information	Value	Unit	Test Standard
Resin Identification	PA-IGF15	-	ISO 1043
Part Marking Code	PA-IGF15	-	ISO 11469
Part Marking Code	>PPA-IGF15<	-	SAE J1344
Rheological properties	dry / cond	Unit	Test Standard
Molding shrinkage, parallel	0.4 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.7 / -	%	ISO 294-4, 2577
Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	5500 / 6100	MPa	ISO 527-1/-2
Stress at break	125 / 118	MPa	ISO 527-1/-2
Strain at break	3.5 / 3	%	ISO 527-1/-2
Flexural Modulus	4900 / -	MPa	ISO 178
Flexural Strength	210 / -	MPa	ISO 178
Charpy impact strength, 73°F	60 / -	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength			ISO 179/1eA
73°F	6 / -	kJ/m <sup>2</sup>	
-40°F	5 / -	kJ/m <sup>2</sup>	
Thermal properties	dry / cond	Unit	Test Standard
Melting temperature, first heat	300 / *	°C	ISO 11357-1/-3
Temp. of deflection under load			ISO 75-1/-2
260 psi	230 / *	°C	
65 psi	277 / *	°C	
Coeff. of linear therm. expansion, parallel	34 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion			ISO 11359-1/-2
normal	73 / *	E-6/K	
Normal, -40-23°C	70 / *	E-6/K	
Parallel, -40-23°C	34 / *	E-6/K	
RTI, electrical			UL 746B
30mil	150 / *	°C	
60mil	150 / *	°C	
120mil	150	°C	
RTI, impact			UL 746B
30mil	105	°C	
60mil	120 / *	°C	
120mil	130	°C	
RTI, strength			UL 746B
30mil	115	°C	
60mil	130 / *	°C	
120mil	140	°C	
Flammability	dry / cond	Unit	Test Standard
Burning Behav. at 60mil nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
UL recognition	yes / *	-	UL 94

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

North America

Asia Pacific

Europe/Middle East/Africa

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Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	IEC 60695-11-10
UL recognition	yes / *	-	UL 94
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 / -	Ohm*m	IEC 62631-3-1
Other properties	dry / cond	Unit	Test Standard
Density	1250 / -	kg/m <sup>3</sup>	ISO 1183
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		
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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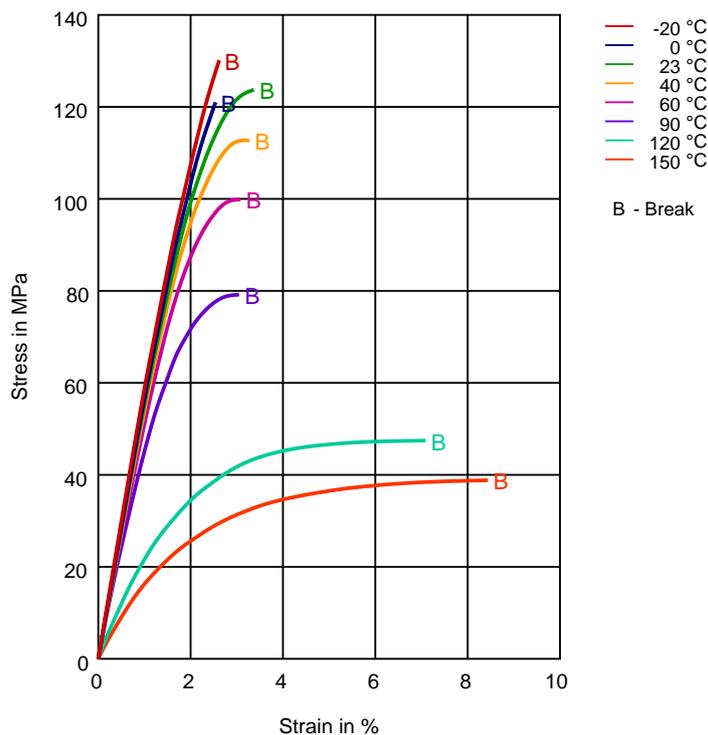


# DuPont™ Zytel® HTN54G15HSLR BK031

## HIGH PERFORMANCE POLYAMIDE RESIN

Diagrams

Stress-strain (dry)



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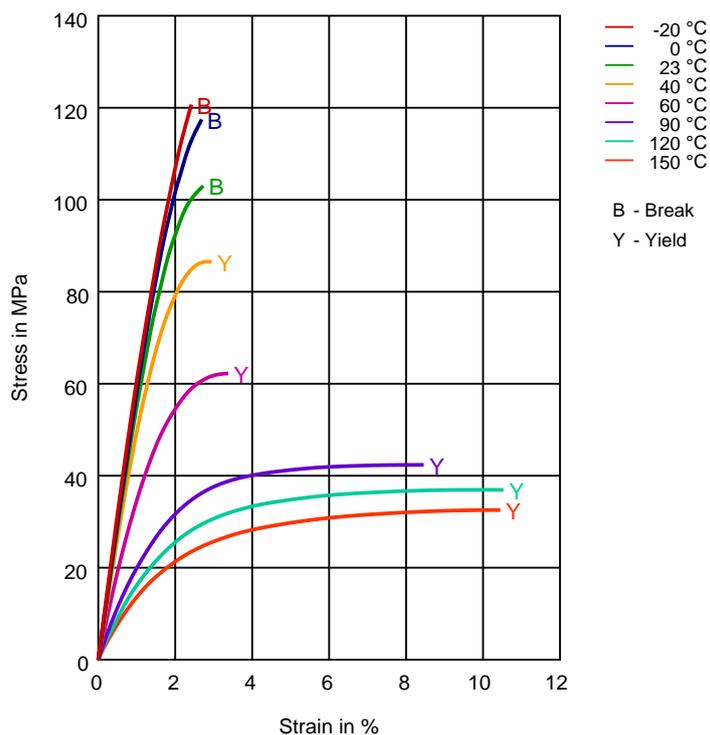
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# DuPont™ Zytel® HTN54G15HSLR BK031

## HIGH PERFORMANCE POLYAMIDE RESIN

Stress-strain (cond.)



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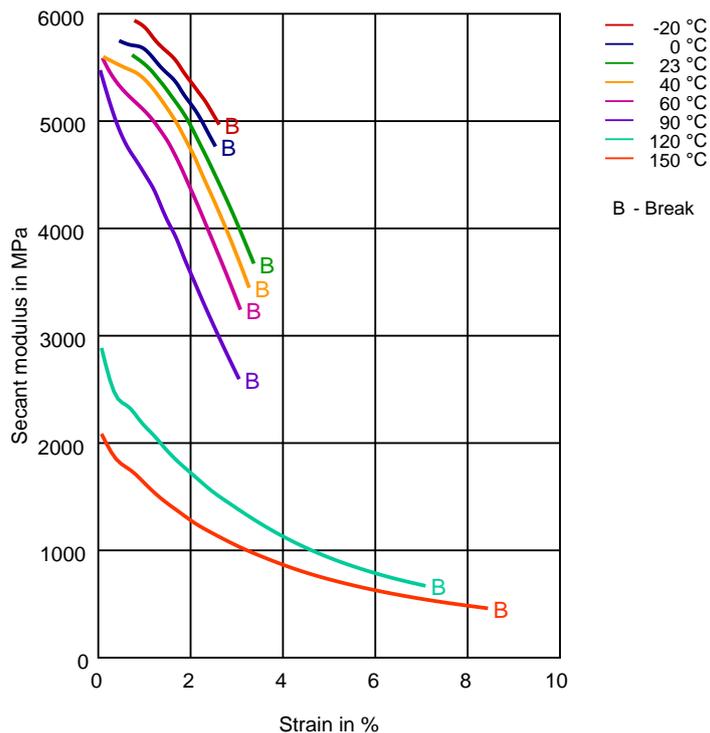
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# DuPont™ Zytel® HTN54G15HSLR BK031

## HIGH PERFORMANCE POLYAMIDE RESIN

Secant modulus-strain (dry)



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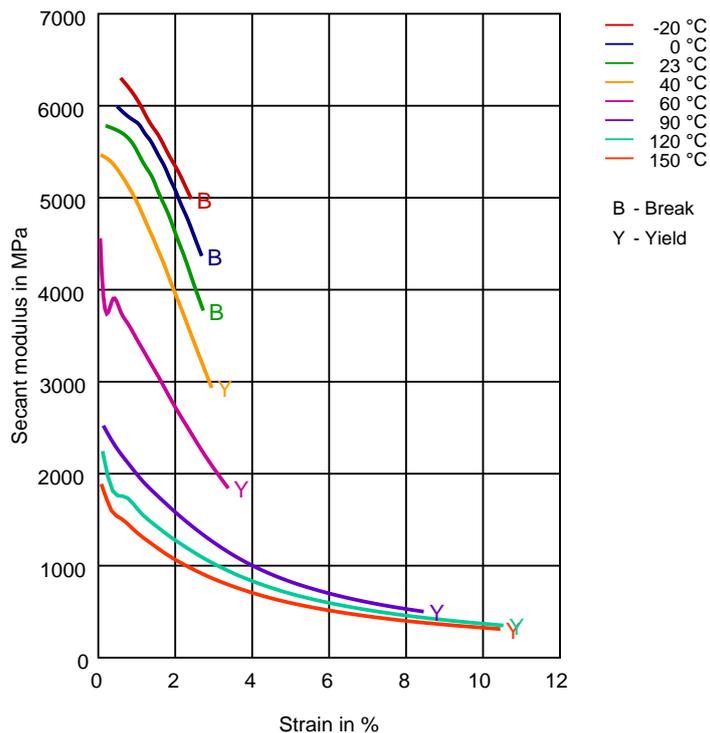
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## HIGH PERFORMANCE POLYAMIDE RESIN

Secant modulus-strain (cond.)



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## HIGH PERFORMANCE POLYAMIDE RESIN

### Chemical Media Resistance

#### Other

- ✓ Water (23°C)
- ✗ Water (90°C)

#### Symbols used:

✓ possibly resistant

Defined as: Supplier has sufficient indication that contact with chemical can be potentially accepted under the intended use conditions and expected service life. Criteria for assessment have to be indicated (e.g. surface aspect, volume change, property change).

✗ not recommended - see explanation

Defined as: Not recommended for general use. However, short-term exposure under certain restricted conditions could be acceptable (e.g. fast cleaning with thorough rinsing, spills, wiping, vapor exposure).

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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