

# DuPont™ Zytel® HTN54G15HSLR NC010

## 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 NC010 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	5600 / 5500	MPa	ISO 527-1/-2
Stress at break	130 / 100	MPa	ISO 527-1/-2
Strain at break	3.7 / 2.7	%	ISO 527-1/-2
Flexural Modulus	4900 / -	MPa	ISO 178
Tensile creep modulus			ISO 899-1
1h	* / 5500	MPa	
1000h	* / 5000	MPa	
Charpy impact strength, 73°F	70 / 60	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, 73°F	6 / -	kJ/m <sup>2</sup>	ISO 179/1eA
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	235 / *	°C	
65 psi	280 / *	°C	
Coeff. of linear therm. expansion, parallel	28 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion			ISO 11359-1/-2
normal	70 / *	E-6/K	
Normal, -40-23°C	70 / *	E-6/K	
Parallel, -40-23°C	32 / *	E-6/K	
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
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
Oxygen index	23 / *	%	ISO 4589-1/-2
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
Dissipation factor			IEC 60250
100Hz	150 / -	E-4	
1MHz	150 / -	E-4	
Volume resistivity	>1E13 / >1E13	Ohm*m	IEC 60093
Surface resistivity	* / >1E15	Ohm	IEC 60093

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

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Electric strength	16.5 / -	kV/mm	IEC 60243-1
Comparative tracking index	575 / 575	-	IEC 60112
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		
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 holdup time and temperature of the resin in the machine. Purge degraded resin carefully with HDPE.

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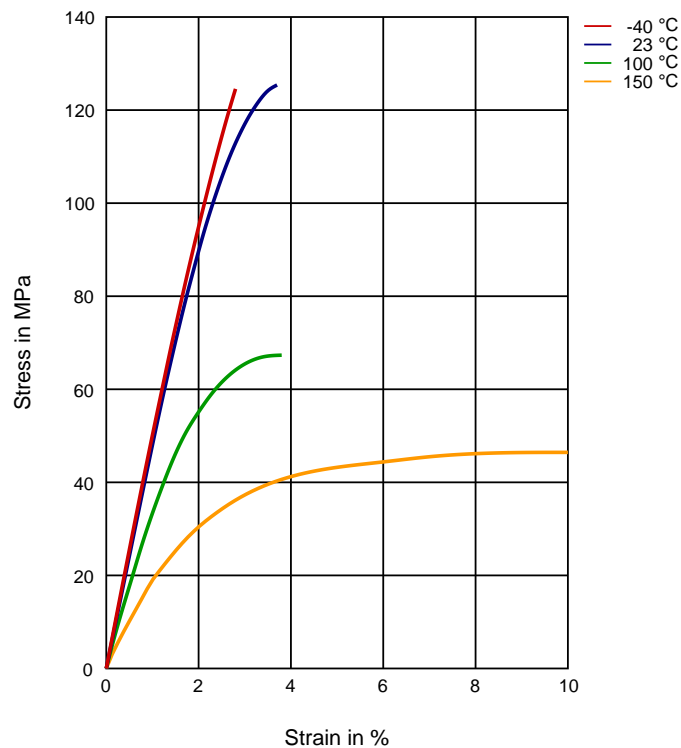


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## HIGH PERFORMANCE POLYAMIDE RESIN

Diagrams

Stress-strain (dry)



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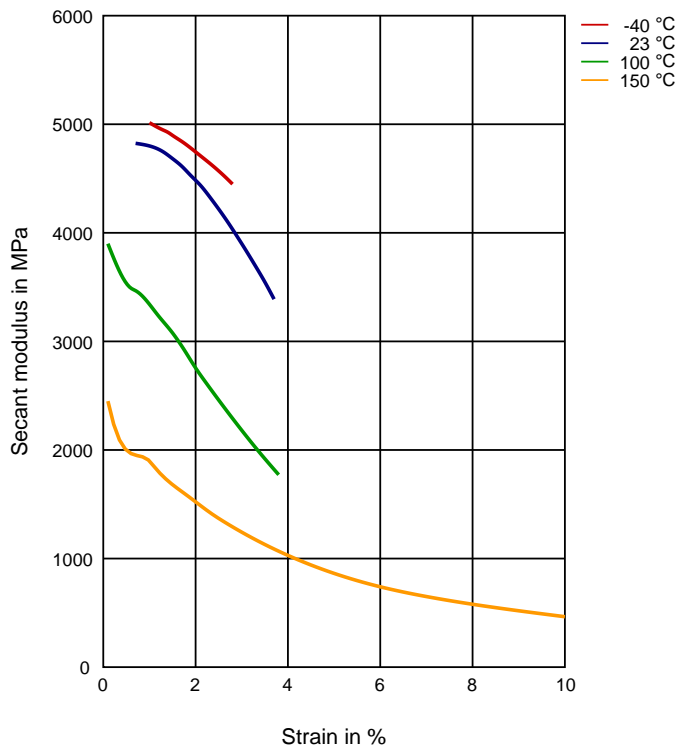
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## HIGH PERFORMANCE POLYAMIDE RESIN

Secant modulus-strain (dry)



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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