

# DuPont™ Zytel® HTNFR55G50NHLW NC010

## HIGH PERFORMANCE POLYAMIDE RESIN

### Product Information

Zytel® HTNFR55G50NHLW NC010 is a 50% glass reinforced, flame retardant, high performance polyamide with low warpage characteristics. It is also a PPA resin and uses a non-halogenated flame retardant.

General information	Value	Unit	Test Standard
Resin Identification	PA-GF50FR(40)	-	ISO 1043
Part Marking Code	PA-GF50FR(40)	-	ISO 11469
Part Marking Code	>PPA-GF50FR<	-	SAE J1344
Rheological properties	dry / cond	Unit	Test Standard
Molding shrinkage, parallel	0.1 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.2 / -	%	ISO 294-4, 2577
Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	18000 / 18800	MPa	ISO 527-1/-2
Stress at break	200 / 175	MPa	ISO 527-1/-2
Strain at break	1.6 / 1.3	%	ISO 527-1/-2
Flexural Modulus	16600 / -	MPa	ISO 178
Flexural Strength	305 / -	MPa	ISO 178
Charpy notched impact strength, 73°F	12 / -	kJ/m <sup>2</sup>	ISO 179/1eA
Thermal properties	dry / cond	Unit	Test Standard
Melting temperature, first heat	298 / *	°C	ISO 11357-1/-3
Temp. of deflection under load, 260 psi	217 / *	°C	ISO 75-1/-2
Flammability	dry / cond	Unit	Test Standard
Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.4 / *	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)
Other properties	dry / cond	Unit	Test Standard
Density	1650 / -	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	%	-
Min. melt temperature	300	°C	-
Max. melt temperature	315	°C	-
Min. mold temperature	70	°C	-
Max. mold temperature	130	°C	-

### Characteristics

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

### Processing Texts

#### Injection molding

For molding machine components, use corrosion resistant and wear resistant steel. For details please contact your DuPont representative. Limit the residence time of the resin in the machine. Use proper protective equipment and adequate ventilation.

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

#### North America

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Toll-Free (USA): 800 441-0575

#### Asia Pacific

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#### Europe/Middle East/Africa

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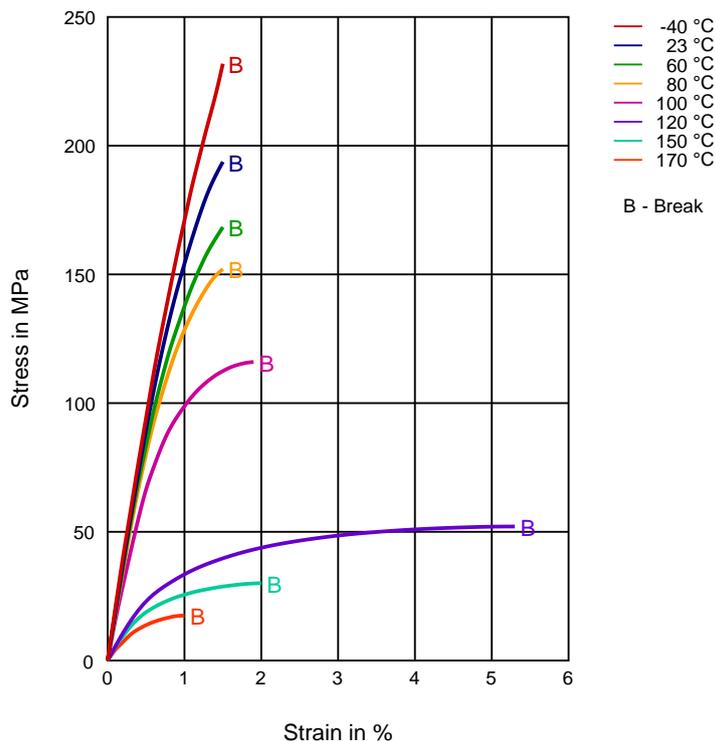


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## HIGH PERFORMANCE POLYAMIDE RESIN

Diagrams

Stress-strain (dry)



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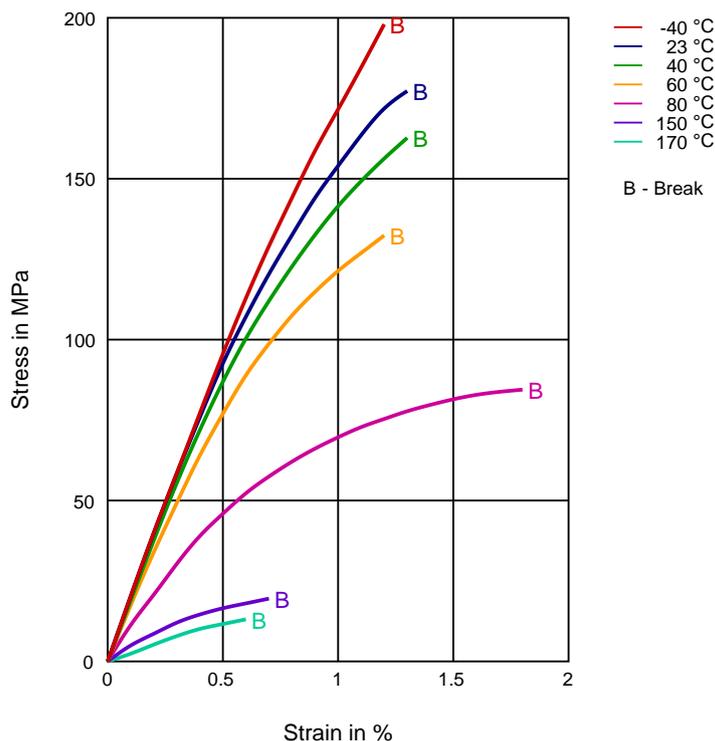


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# DuPont™ Zytel® HTNFR55G50NHLW NC010

## HIGH PERFORMANCE POLYAMIDE RESIN

Stress-strain (cond.)



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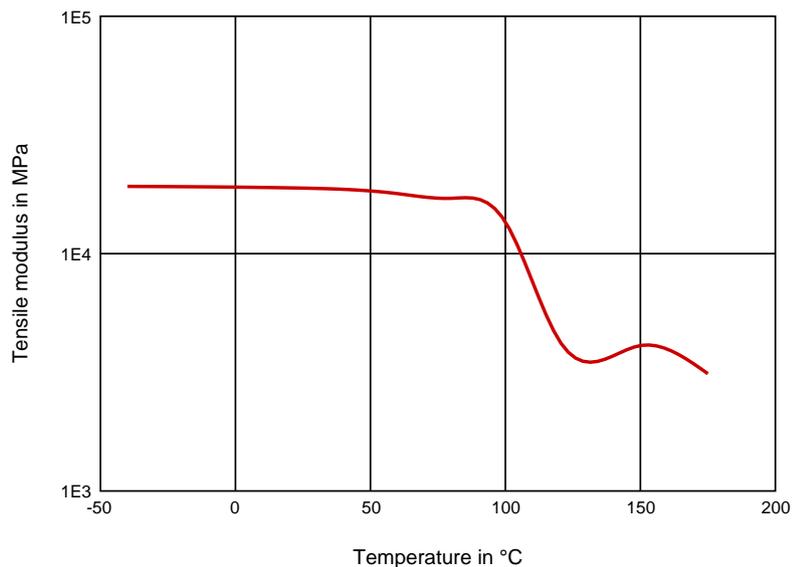


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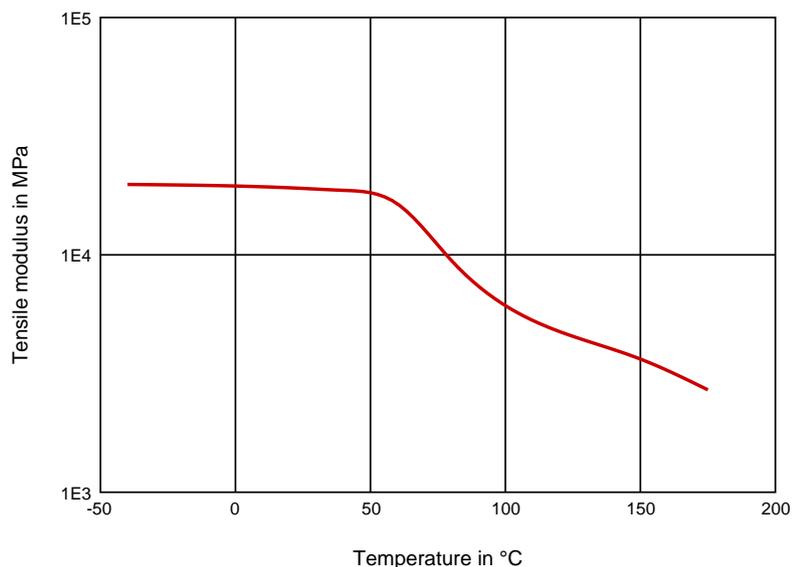
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## HIGH PERFORMANCE POLYAMIDE RESIN

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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