

# DuPont™ Zytel® HTN51G35HSLR BK420J

## HIGH PERFORMANCE POLYAMIDE RESIN

### Product Information

Zytel® HTN51G35HSLR BK420J is a 35% glass reinforced, heat stabilized, lubricated, hydrolysis resistant high performance polyamide resin with improved surface appearance. It is also a PPA resin.

General information	Value	Unit	Test Standard
Resin Identification	PA6T/XT-GF35	-	ISO 1043
Part Marking Code	PA6T/XT-GF35	-	ISO 11469
Part Marking Code	>PPA-GF35<	-	SAE J1344
Rheological properties	dry / cond	Unit	Test Standard
Molding shrinkage, parallel	0.2 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.5 / -	%	ISO 294-4, 2577
Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	11500 / -	MPa	ISO 527-1/-2
Stress at break	215 / -	MPa	ISO 527-1/-2
Strain at break	2.6 / -	%	ISO 527-1/-2
Flexural Modulus	10300 / -	MPa	ISO 178
Charpy notched impact strength, 73°F	11 / -	kJ/m <sup>2</sup>	ISO 179/1eA
Thermal properties	dry / cond	Unit	Test Standard
Temp. of deflection under load, 260 psi	264 / *	°C	ISO 75-1/-2
Flammability	Value	Unit	Test Standard
FMVSS Class	B	-	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	23	mm/min	ISO 3795 (FMVSS 302)
Other properties	dry / cond	Unit	Test Standard
Density	1460 / -	kg/m <sup>3</sup>	ISO 1183
VDA Properties	Value	Unit	Test Standard
Odor test	4	class	VDA 270
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	-
Mold Temperature Optimum	150	°C	-
Min. mold temperature	140 <sup>(1)</sup>	°C	-
Max. mold temperature	180	°C	-

1: Higher temperature needed for thinner sections.

### Characteristics

Processing	<ul style="list-style-type: none"> <li>• Injection Molding</li> </ul>
Special characteristics	<ul style="list-style-type: none"> <li>• Heat stabilized or stable to heat</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

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.

When lower mold temperatures are used, the initial warpage and shrinkage may be lower, but the surface appearance and chemical resistance may be reduced, and the dimensional change may be greater when parts are subsequently heated.

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

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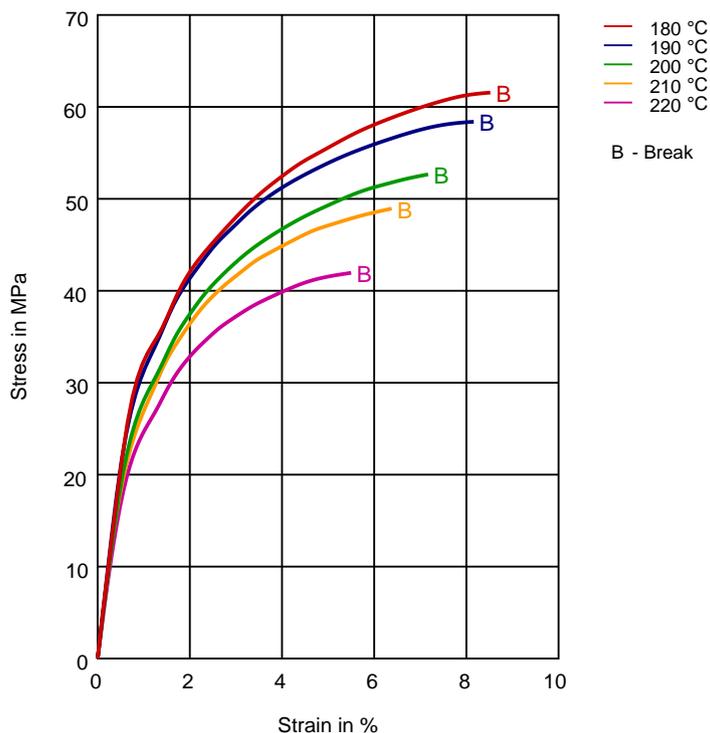
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# DuPont™ Zytel® HTN51G35HSLR BK420J

## HIGH PERFORMANCE POLYAMIDE RESIN

Diagrams

Stress-strain (dry)



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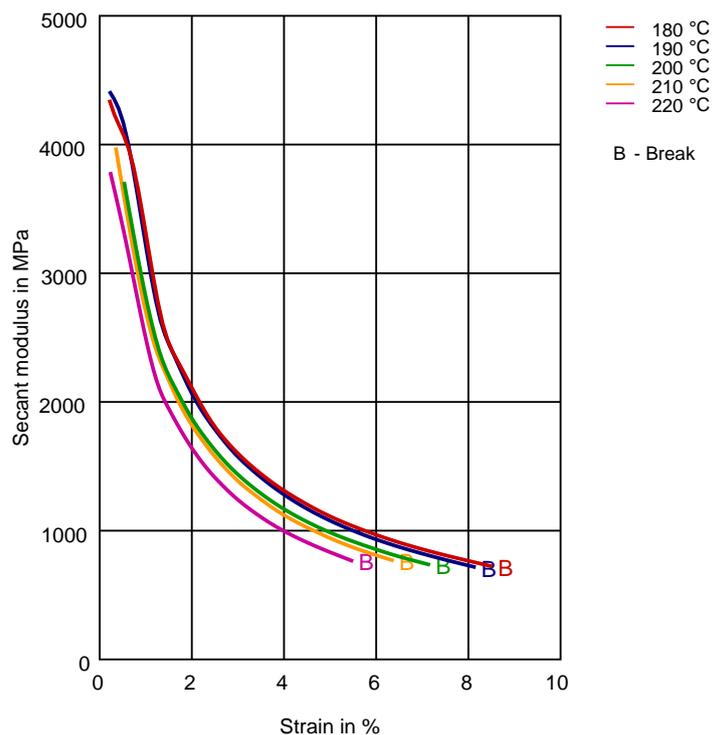
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## HIGH PERFORMANCE POLYAMIDE RESIN

Secant modulus-strain (dry)



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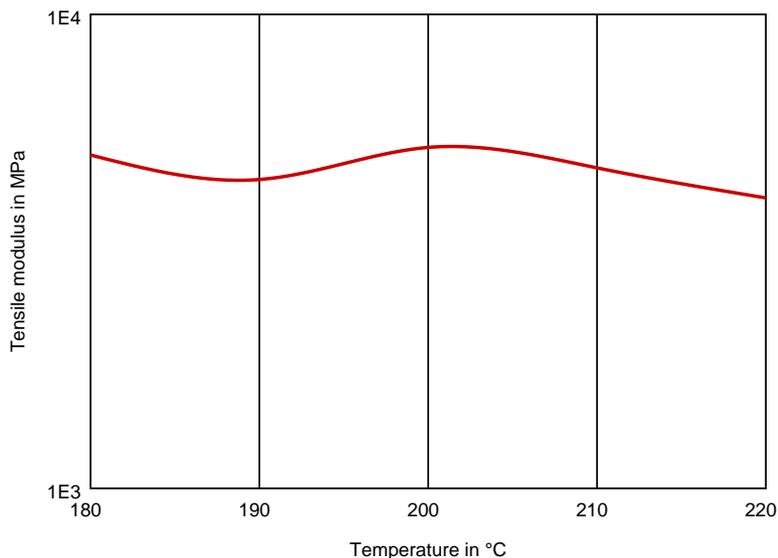
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## HIGH PERFORMANCE POLYAMIDE RESIN

Tensile modulus-temperature (dry)



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## HIGH PERFORMANCE POLYAMIDE RESIN

### Chemical Media Resistance

#### Other

- ✓ Ethylene Glycol (50% by mass) in water (108°C)
- ✓ Water (23°C)
- ✓ Water (90°C)
- ✓ Coolant Glysantin G48, 1:1 in water (125°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).

- X 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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