

DuPont™ Zytel® HTNFE350064 BK544

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® HTNFE350064 BK544 is a carbon fiber reinforced, toughened, heat stabilised, conductive high performance polyamide resin developed for static dissipative applications. It is also a PPA resin.

General information	Value	Unit	Test Standard
Resin Identification	PA-ICF15	-	ISO 1043
Part Marking Code	PA-ICF15	-	ISO 11469
Part Marking Code	>PPA-ICF<	-	SAE J1344
Rheological properties	dry / cond	Unit	Test Standard
Moulding shrinkage, parallel	0.2 / -	%	ISO 294-4, 2577
Moulding shrinkage, normal	0.5 / -	%	ISO 294-4, 2577
Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	10400 / 11000	MPa	ISO 527-1/-2
Stress at break	168 / 162	MPa	ISO 527-1/-2
Strain at break	2.4 / 2.3	%	ISO 527-1/-2
Flexural Modulus	8700 / -	MPa	ISO 178
Flexural Strength	240 / -	MPa	ISO 178
Charpy impact strength, 23°C	48 / -	kJ/m ²	ISO 179/1eU
Charpy notched impact strength			ISO 179/1eA
23°C	6 / -	kJ/m ²	
-40°C	3 / -	kJ/m ²	
Thermal properties	dry / cond	Unit	Test Standard
Melting temperature, first heat	300 / *	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	258 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	14 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion			ISO 11359-1/-2
normal	83 / *	E-6/K	
Normal, -40-23°C	80 / *	E-6/K	
Normal, 55-160°C	85 / *	E-6/K	
Parallel, -40-23°C	17 / *	E-6/K	
Parallel, 55-160°C	15 / *	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, conductive plastics	1000 / -	Ohm*m	ASTM D 4496
Other properties	dry / cond	Unit	Test Standard
Density	1200 / -	kg/m ³	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. mould temperature	85	°C	-

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

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Max. mould temperature 135 °C -

Characteristics

Processing	• Injection Moulding		
Delivery form	• Pellets		
Additives	• Release agent		
Special characteristics	• Increased electrical conductivity	• Heat stabilised or stable to heat	
	• Static dissipative	• Low wear / Low friction	
Regional Availability	• North America	• Asia Pacific	• Near East/Africa
	• Europe	• South and Central America	• 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.

[Molding guide](#)

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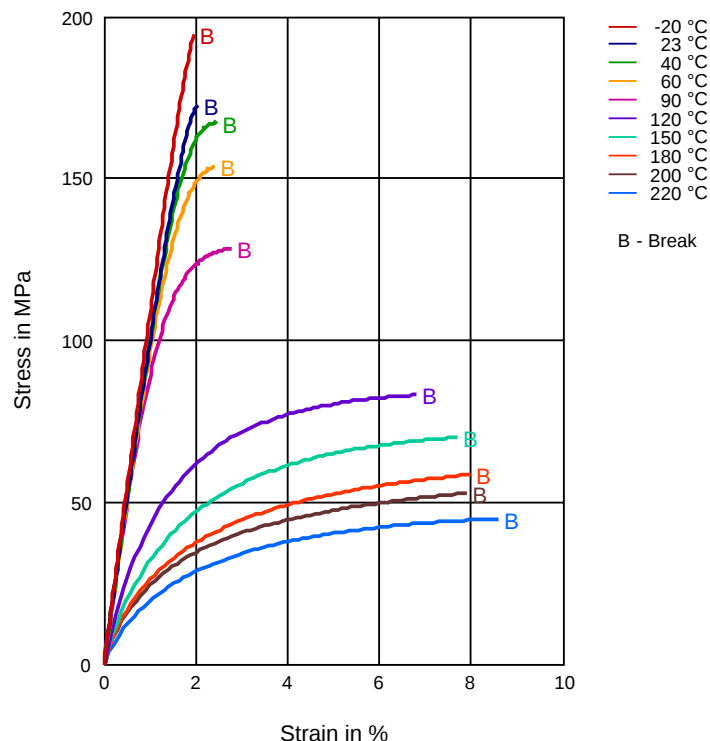


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HIGH PERFORMANCE POLYAMIDE RESIN

Diagrams

Stress-strain (dry)



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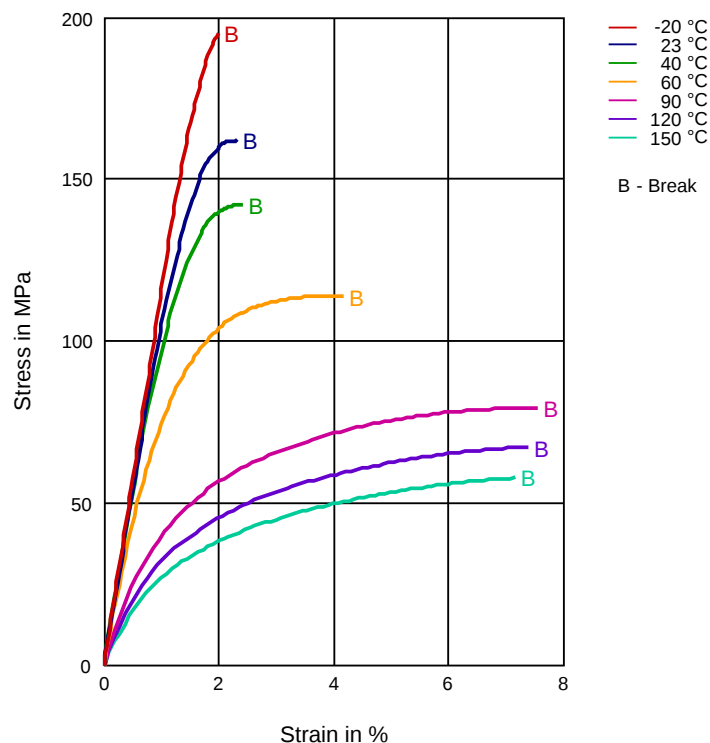
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HIGH PERFORMANCE POLYAMIDE RESIN

Stress-strain (cond.)



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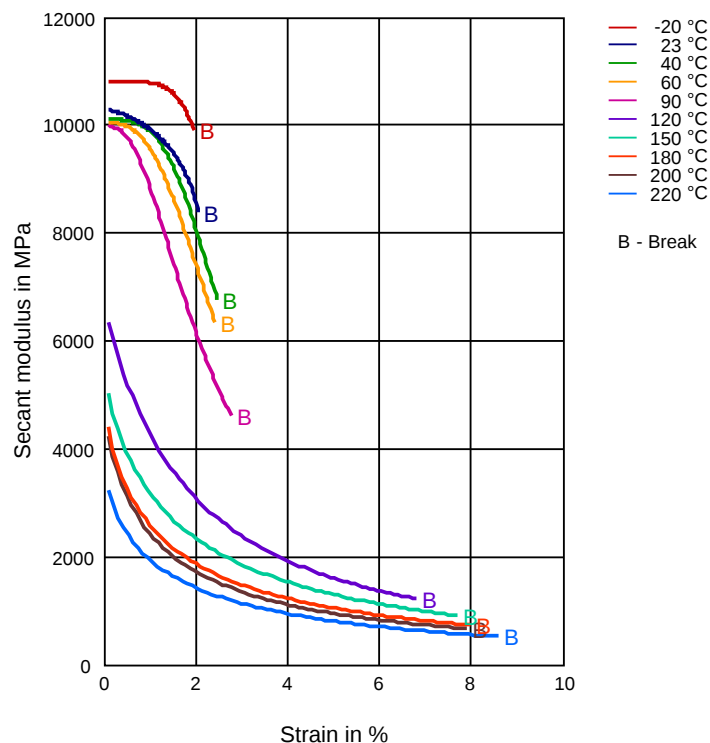
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Secant modulus-strain (dry)



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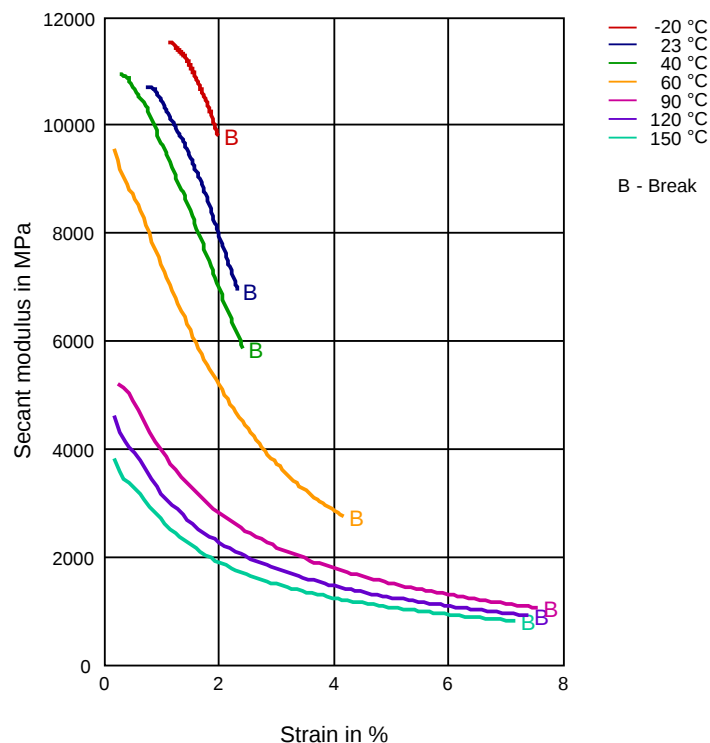


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Secant modulus-strain (cond.)



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Chemical Media Resistance

Mineral oils

✓ SAE 10W40 multigrade motor oil (130°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 4mm (Hytrek® measured at 2 mm), IEC Electrical properties measured at 2mm, all ASTM properties measured at 3.2mm, and test temperatures are 23°C unless otherwise stated.

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