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 stabilized, 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**
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	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, 73°F	48 / -	kJ/m²	ISO 179/1eU
Charpy notched impact strength			ISO 179/1eA
73°F	6 / -	kJ/m²	
-40°F	3 / -	kJ/m²	
Thermal properties	**dry / cond**	**Unit**	**Test Standard**
Melting temperature, first heat	300 / *	°C	ISO 11357-1/-3
Temp. of deflection under load, 260 psi	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/m³	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	85	°C	-

To find out more, visit DuPont Performance Polymers or contact nearest DuPont location.

North America **Asia Pacific** **Europe/Middle East/Africa**

DONGGUAN FUMEI PLASTICS CO.,LTD. TEL: +86 0769-82339888 / 87798999

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Max. mold temperature	135	°C	-

Characteristics

Processing	• Injection Molding		
Delivery form	• Pellets		
Additives	• Release agent		
Special characteristics	• Increased electrical conductivity	• Static dissipative	• 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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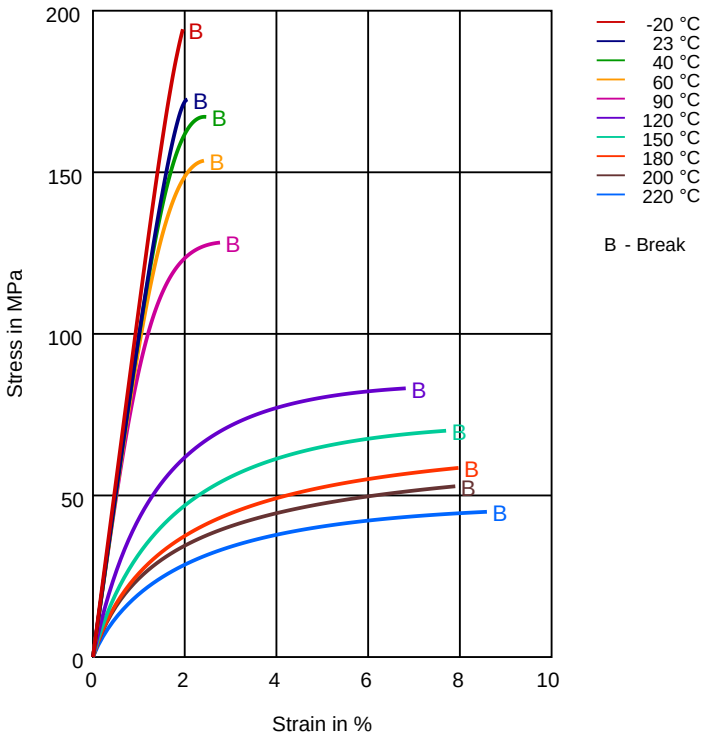
Diagrams

Stress-strain (dry)



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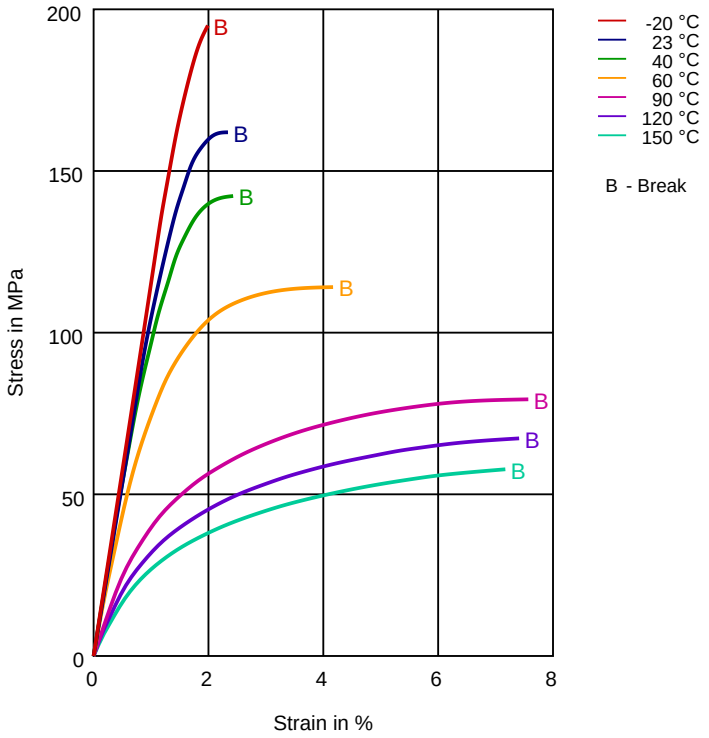
Stress-strain (cond.)



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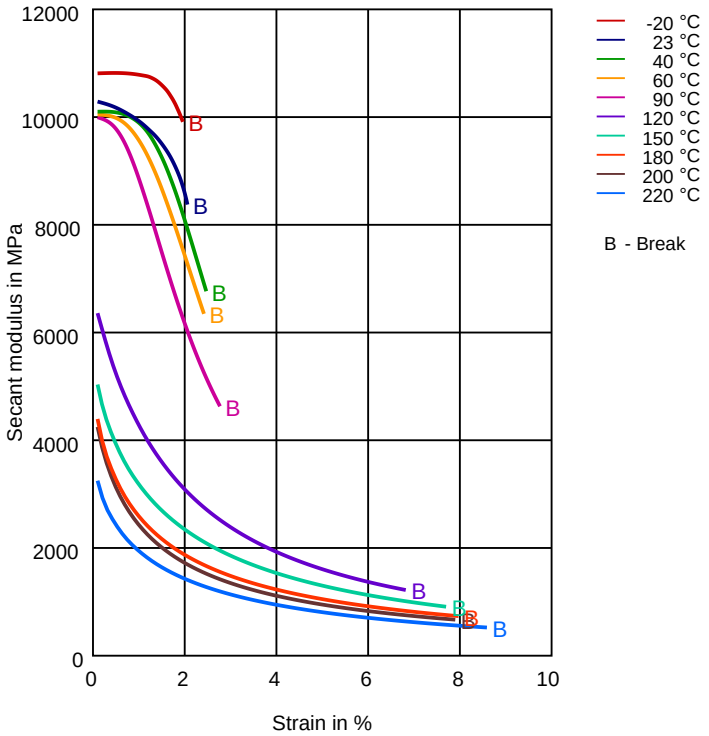
Secant modulus-strain (dry)



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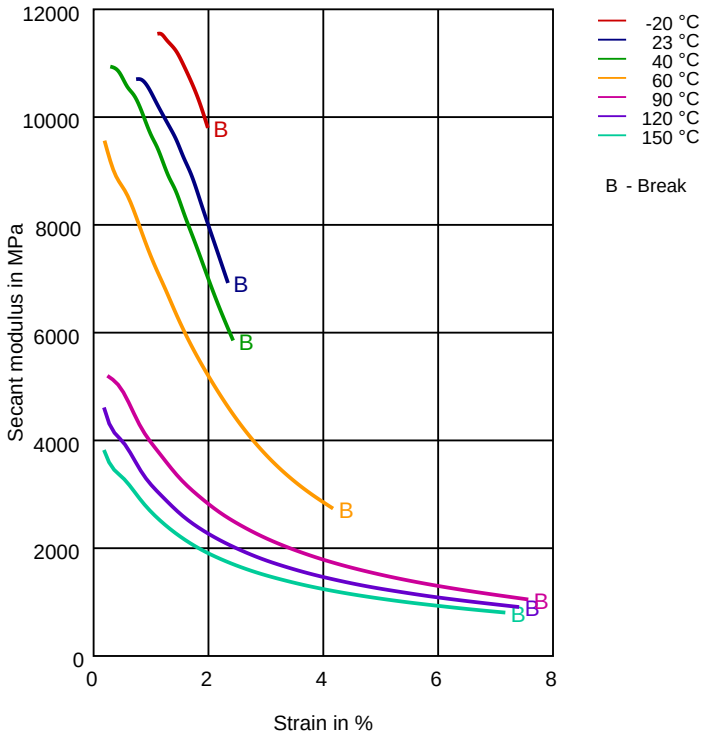
Secant modulus-strain (cond.)



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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 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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