

DuPont™ Zytel® 73G40T BK416

NYLON RESIN

Product Information

Zytel® 73G40T BK416 is a 40% Glass Reinforced, Toughened, Polyamide 6

General information	Value	Unit	Test Standard
Resin Identification	PA6-IGF40	-	ISO 1043
Part Marking Code	PA6-IGF40	-	ISO 11469
Rheological properties	dry / cond	Unit	Test Standard
Molding shrinkage, parallel	0.1 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.5 / -	%	ISO 294-4, 2577
Melt viscosity, @ 1000 sec-1, 280°C	190 / *	Pa s	ISO 11443
Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	1.81E6 / 1.17E6	psi	ISO 527-1/-2
Stress at break	30500 / 21300	psi	ISO 527-1/-2
Strain at break	3.8 / 6.9	%	ISO 527-1/-2
Charpy impact strength, 73°F	49.9 / 54.7	ftlb/in ²	ISO 179/1eU DS
Charpy notched impact strength			ISO 179/1eA
73°F	9.04 / 10.9	ftlb/in ²	
-22°F	6.66 / 6.66	ftlb/in ²	
DS: Derived from similar grade			
Thermal properties	dry / cond	Unit	Test Standard
Melting temperature, 18°F/min	428 / *	°F	ISO 11357-1/-3
Temp. of deflection under load, 260 psi	419 / *	°F	ISO 75-1/-2
Flammability	Value	Unit	Test Standard
FMVSS Class	B	-	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<100	in/min	ISO 3795 (FMVSS 302)
Other properties	dry / cond	Unit	Test Standard
Humidity absorption, 80mil	1.5 / *	%	Sim. to ISO 62 DS
Water absorption, 80mil	5.3 / *	%	Sim. to ISO 62 DS
Density	1.44 / -	g/cm ³	ISO 1183
DS: Derived from similar grade			
Injection	dry / cond	Unit	Test Standard
Drying Recommended	yes	-	-
Drying Temperature	176	°F	-
Drying Time, Dehumidified Dryer	2 - 4	h	-
Processing Moisture Content	≤0.2	%	-
Melt Temperature Optimum	518	°F	-
Min. melt temperature	500	°F	-
Max. melt temperature	536	°F	-
Max. screw tangential speed	0.2 / *	m/s	-
Mold Temperature Optimum	212	°F	-
Min. mold temperature	158	°F	-
Max. mold temperature	248	°F	-
Hold pressure range	7250 - 14500	psi	-
Hold pressure time	0.0762	s/mil	-

Characteristics

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

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

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Tel: +1 302 999-4592

Toll-Free (USA): 800 441-0575

Asia Pacific

Tel: +81 3 5521 8600

Europe/Middle East/Africa

Tel: +41 22 717 51 11

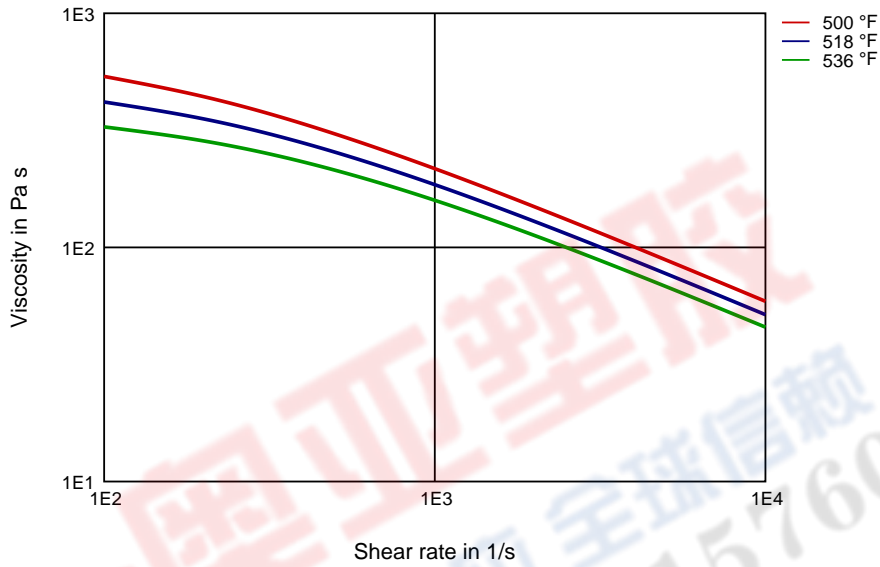


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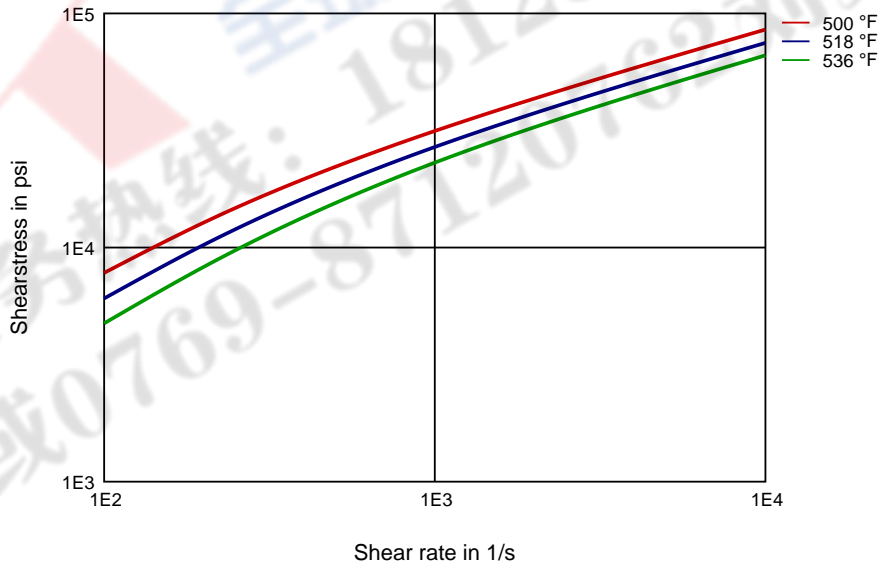
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Diagrams

Viscosity-shear rate



Shearstress-shear rate



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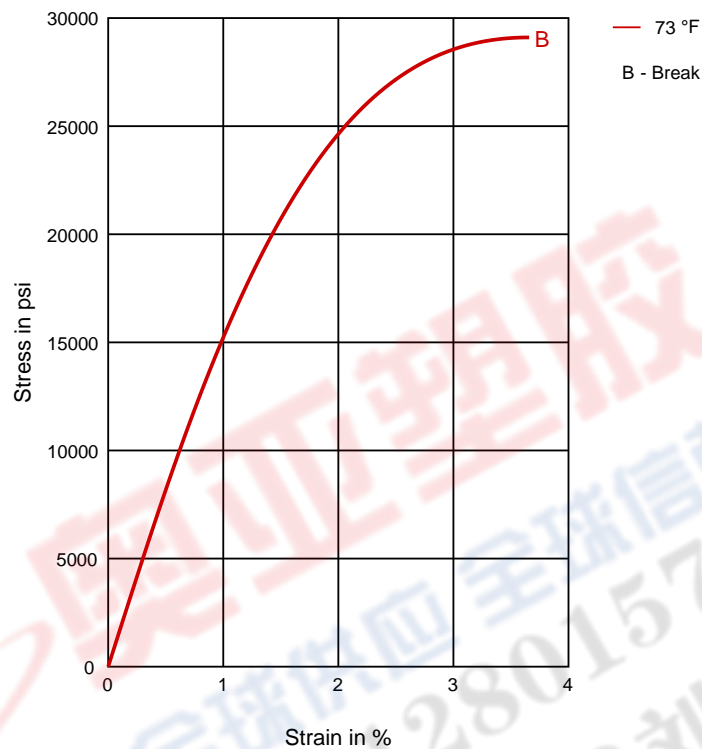
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Stress-strain (dry)



Revised: 2017-07-18

Page: 3 of 5

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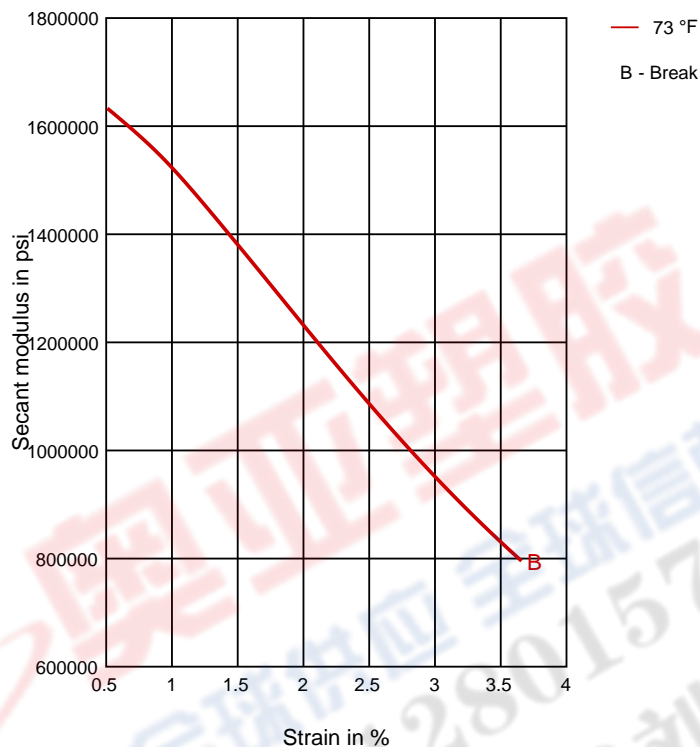


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DuPont™ Zytel® 73G40T BK416

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Secant modulus-strain (dry)



Revised: 2017-07-18

Page: 4 of 5

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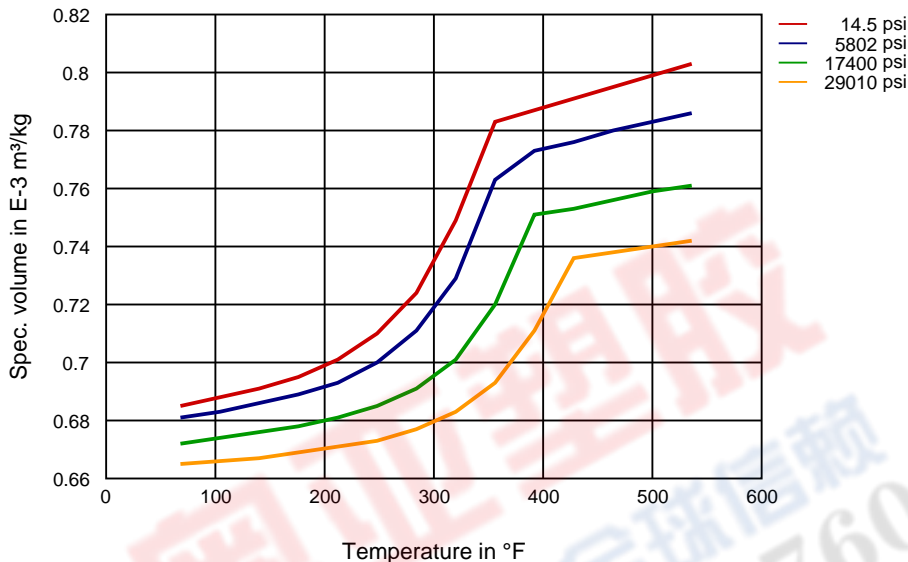


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Specific volume-temperature (pvT)



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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