Zytel® HTNFR520NH BK337

HIGH PERFORMANCE POLYAMIDE RESIN

Zytel® HTNFR52G0NH BK337 is an unreinforced, flame retardant high performance polyamide resin. It is also a PPA resin and it uses a non-halogenated flame retardant.

Product information

Resin Identification	PA6T/66 FR(40)	ISO 1043
Part Marking Code	>PA6T/66 FR(40)<	ISO 11469
Part Marking Code	>PPA FR<	SAE J1344

Rheological properties

	dry/cond.		
Molding shrinkage, parallel	1.2 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	1.4 / -	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	537000 / 522000	psi	ISO 527-1/-2
Tensile stress at yield, 50mm/min	* / 6800	psi	ISO 527-1/-2
Tensile strain at yield, 50mm/min	* / 3.5	%	ISO 527-1/-2
Tensile stress at break, 5mm/min	9430 / *	psi	ISO 527-1/-2
Nominal strain at break	* / 13	%	ISO 527-1/-2
Tensile strain at break, 5mm/min	5.5 / *	%	ISO 527-1/-2
Charpy impact strength, 23°C	21.4 / 28.5	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	0.951 / 1.19	ftlb/in²	ISO 179/1eA

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	590 / *	°F	ISO 11357-1/-3
Glass transition temperature, 10°C/min	203 / 140	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	219 / *	°F	ISO 75-1/-2

Flammability

	dry/cond.		
Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.0157 / *	in	IEC 60695-11-10

Electrical properties

	dry/cond.		
Comparative tracking index	600 / -		IEC 60112

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.6 / *	%	Sim. to ISO 62
Water absorption, 2mm	6.5 / *	%	Sim. to ISO 62
Density	0.044 / -	lb/in³	ISO 1183

Injection

Melt Temperature Optimum	617	°F
Min. melt temperature	608	°F
Max. melt temperature	626	°F
Mold Temperature Optimum	212	°F
Min. mold temperature	176	°F
Max. mold temperature	248	°F

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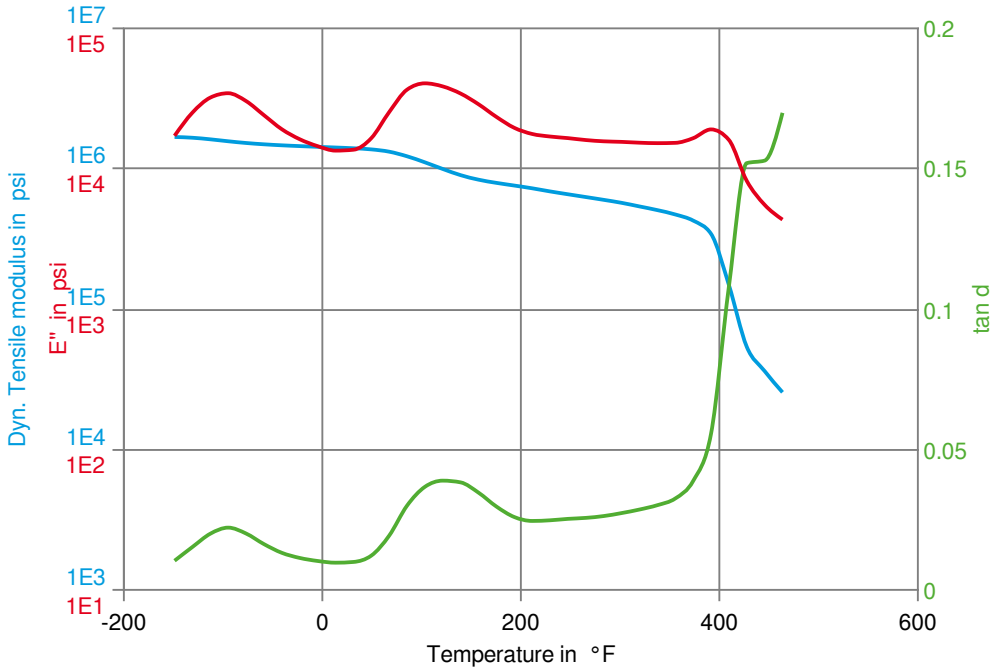
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Hold Pressure Time (h is the max. wall thickness of the part in mm)	h^2+2 s
Ejection temperature	484 °F

Characteristics

Processing	Injection Molding
Additives	Flame retardant, Non-halogenated/Red phosphorus free flame retardant
Special characteristics	Flame retardant, Heat stabilized or stable to heat

Dynamic Tensile modulus-temperature (dry)

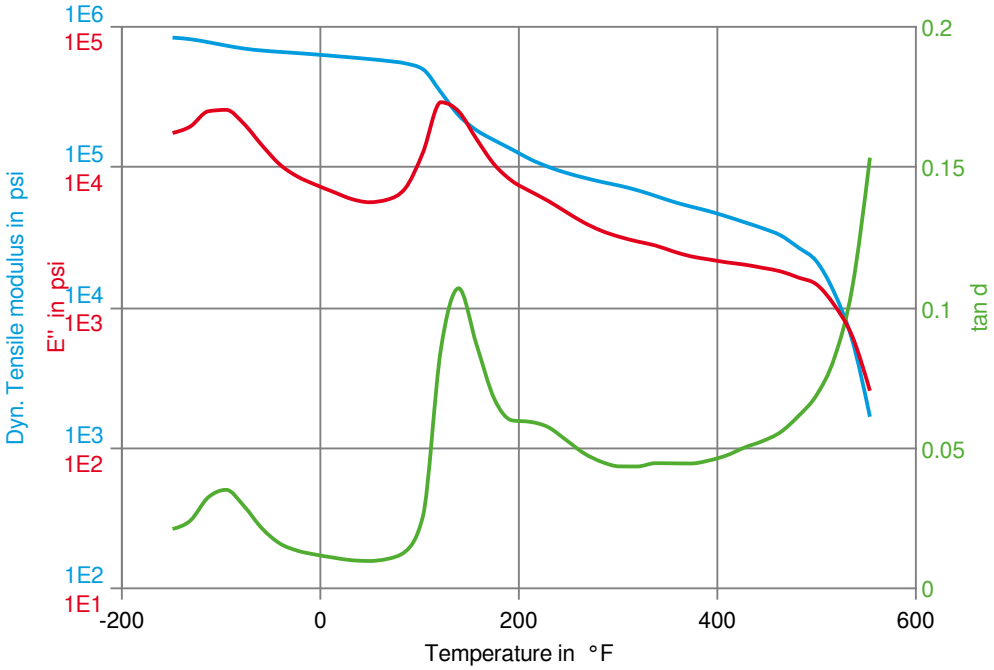


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Dynamic Tensile modulus-temperature (cond.)

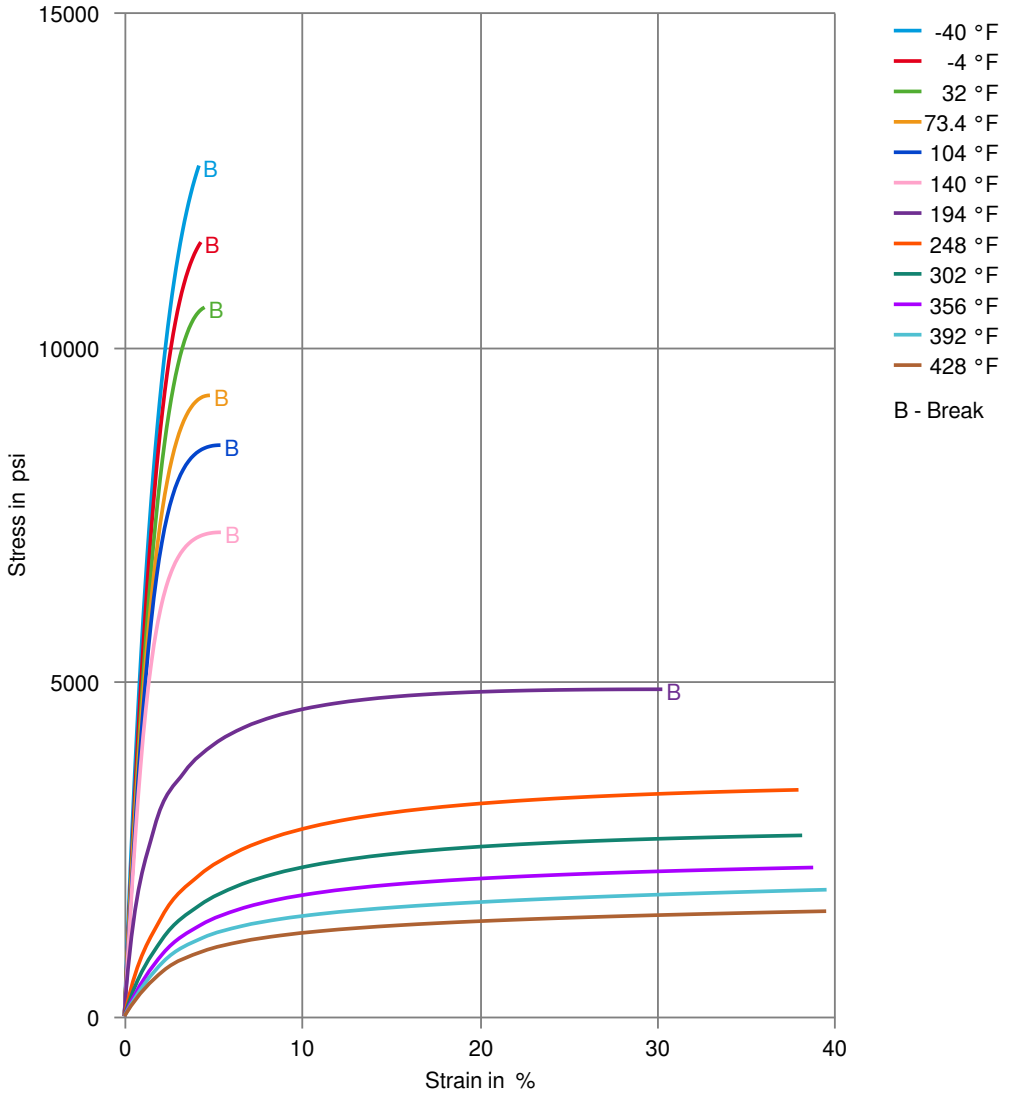


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Stress-strain (dry)

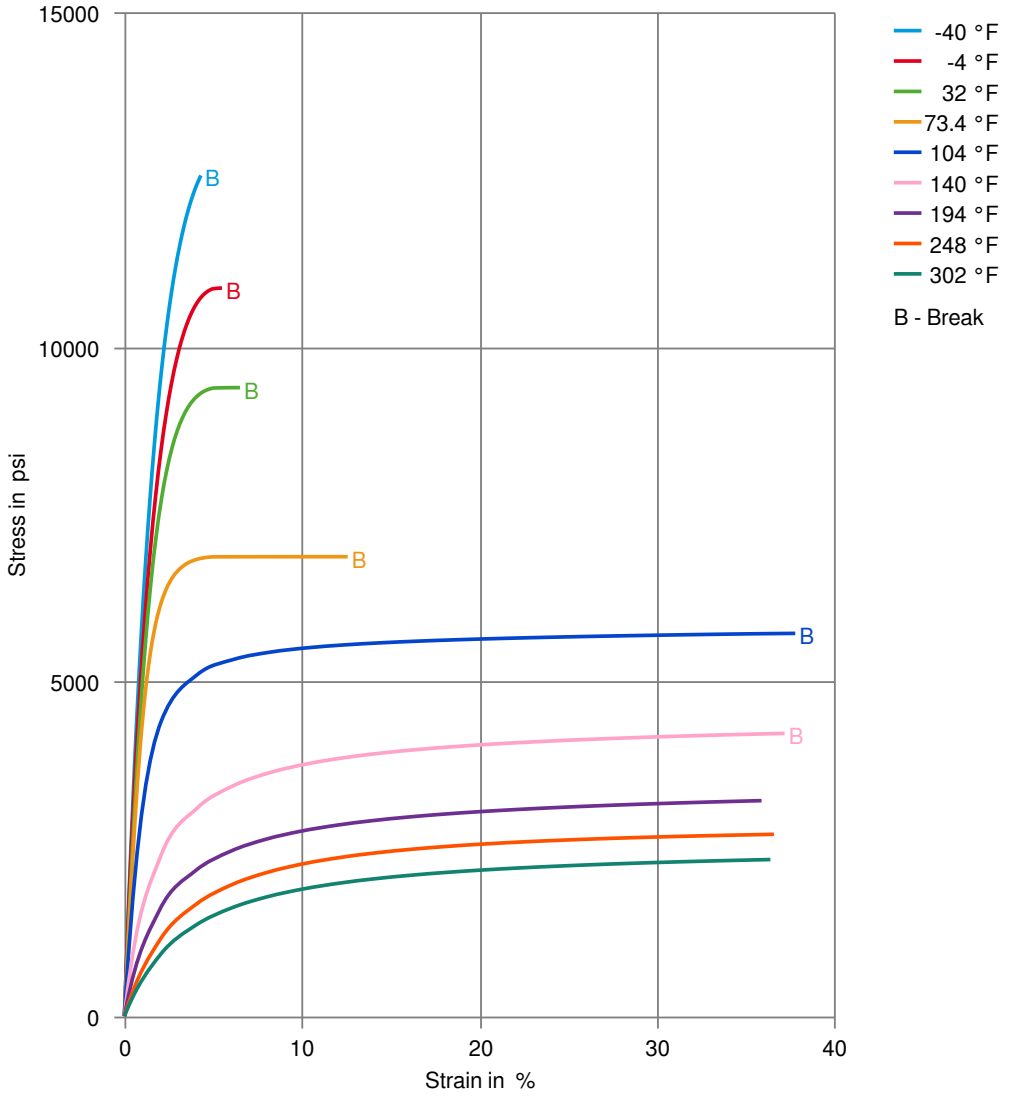


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Stress-strain (cond.)

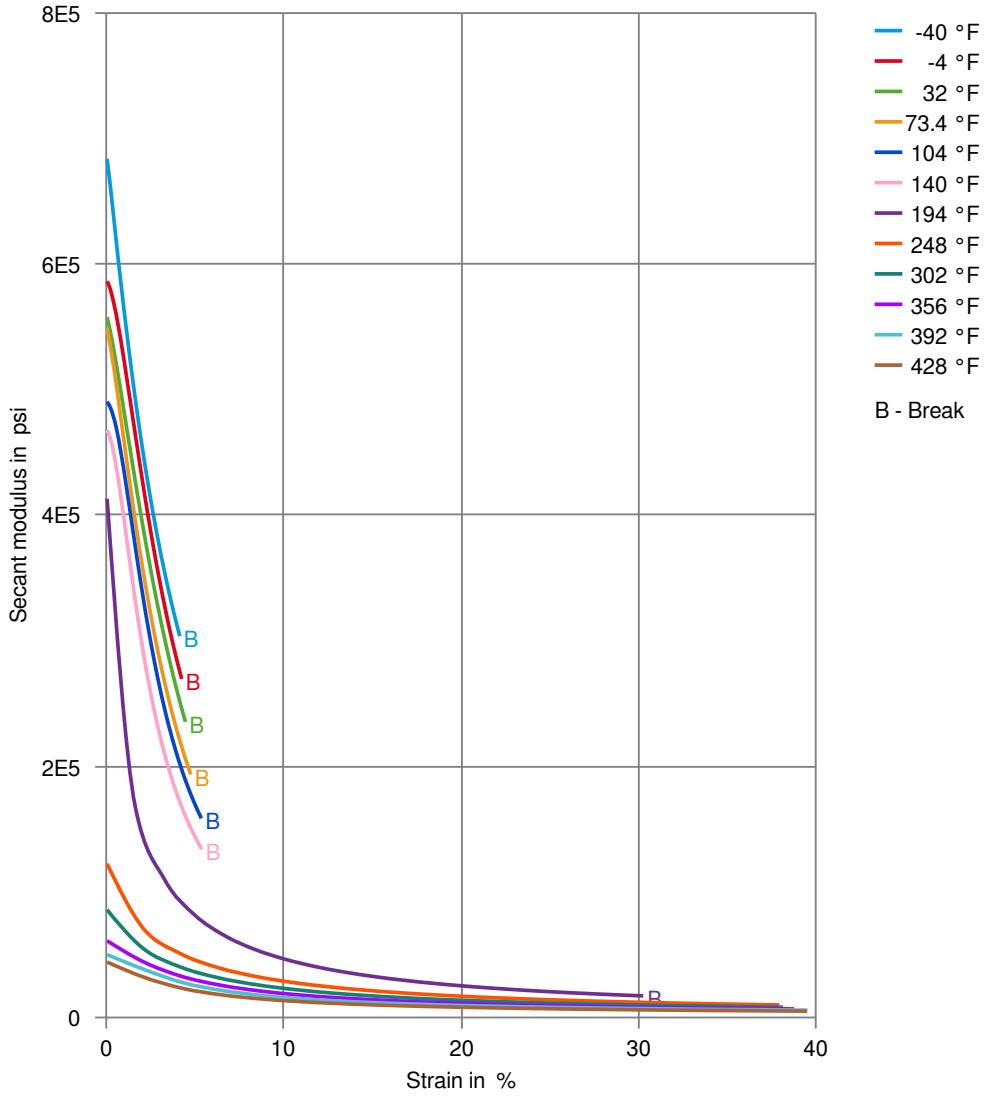


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Secant modulus-strain (dry)

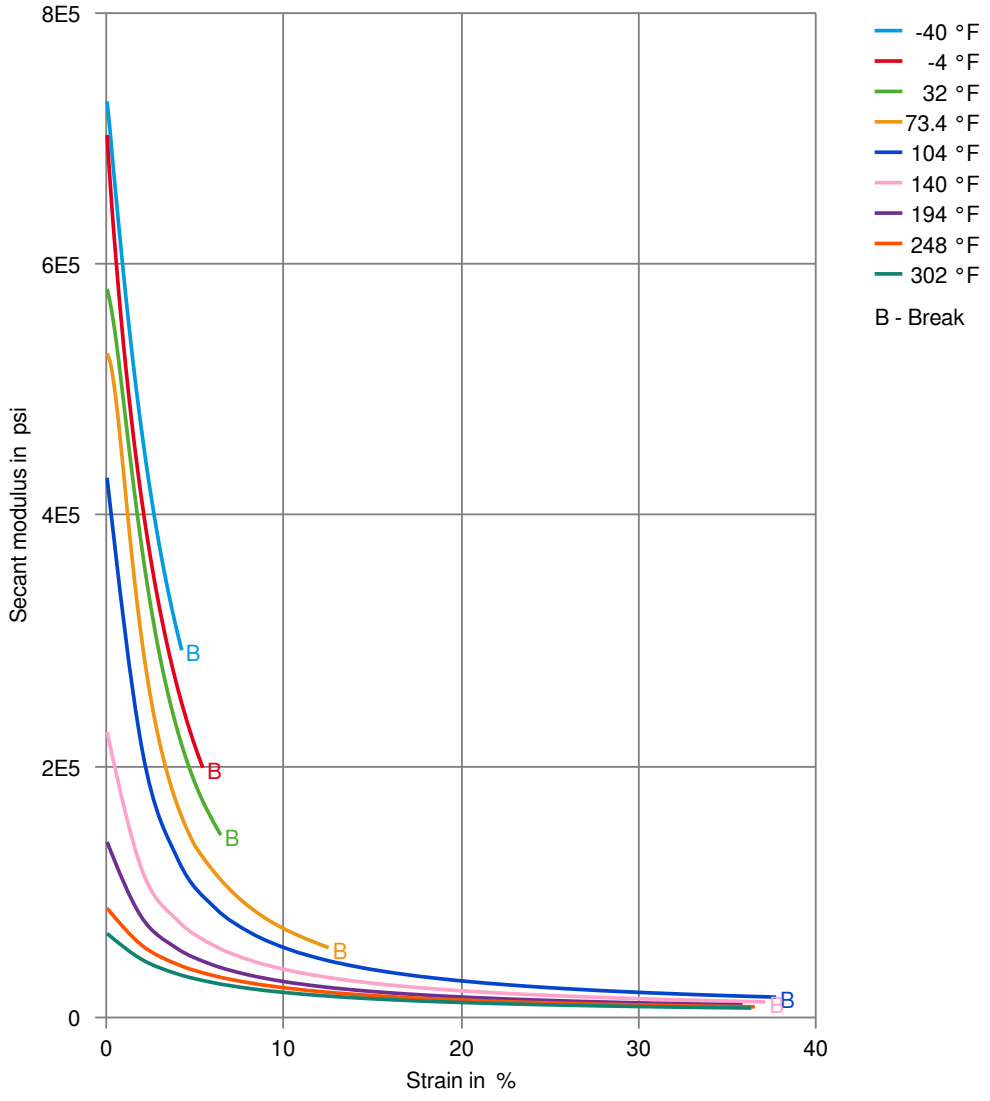


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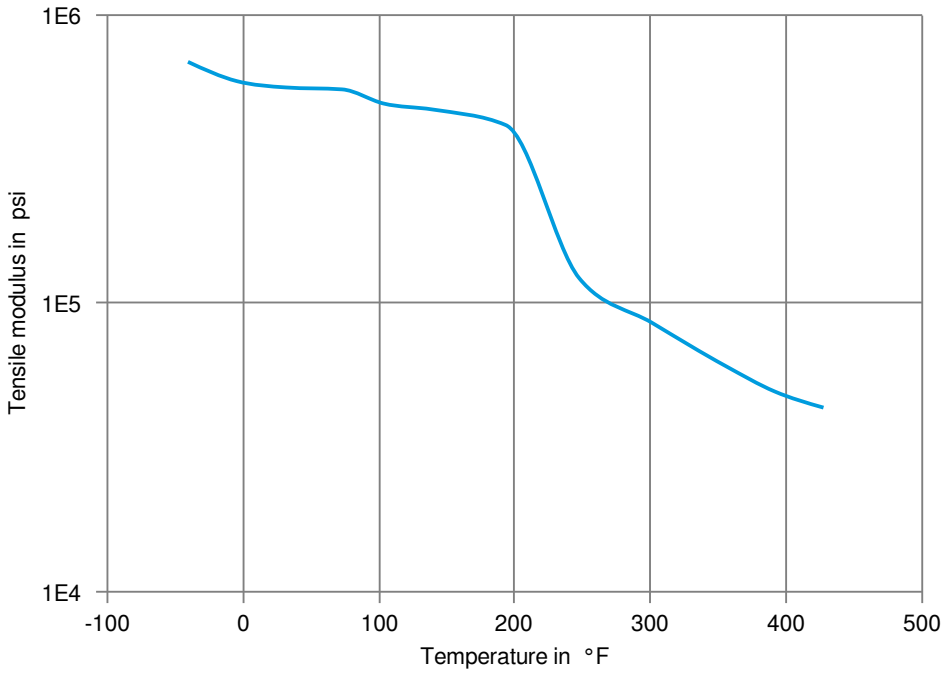
Secant modulus-strain (cond.)



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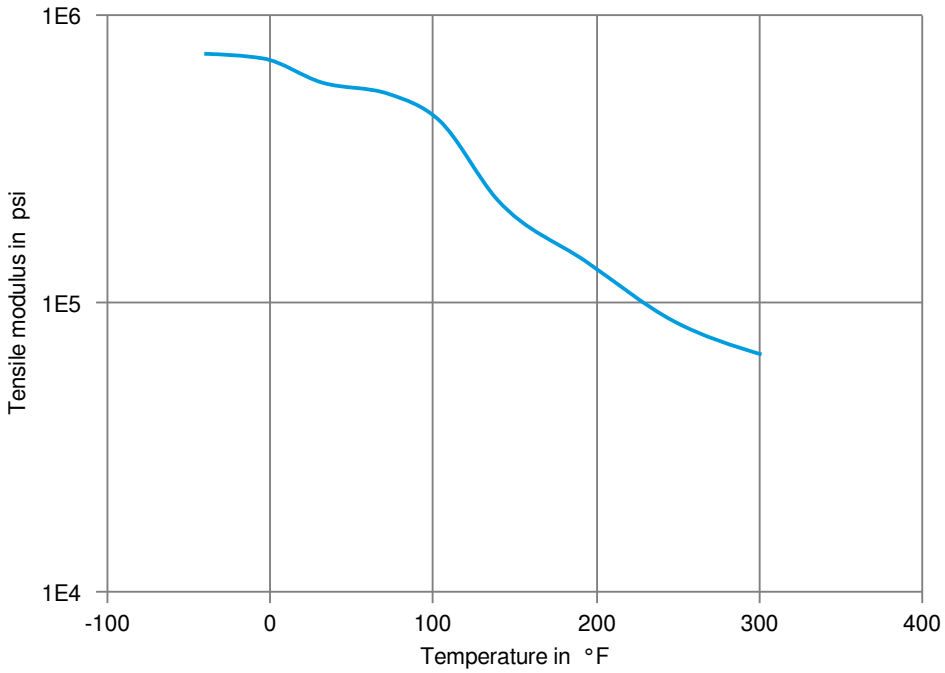
Tensile modulus-temperature (dry)



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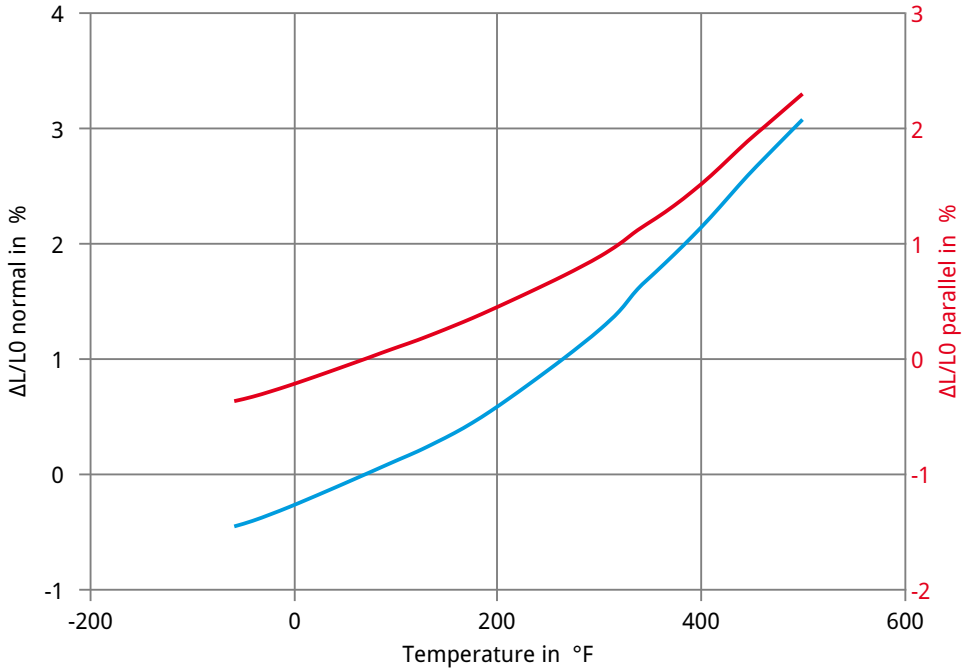
Tensile modulus-temperature (cond.)



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Thermal expansion



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