CELANYL® A3 HHR3 GF30 BK 9005

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Designed for Automotive industry, specifically to withstand contact with coolant and oils in extreme thermal conditions.

Product information

Resin Identification	PA66-GF30	ISO 1043
Part Marking Code	>PA66-GF30<	ISO 11469

Rheological properties

Molding shrinkage range, parallel	0.3 - 0.6	%	ISO 294-4, 2577
Molding shrinkage range, normal	0.6 - 0.9	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	1.45E6 / 1.02E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	27600 / 19600	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	3.2 / 6	%	ISO 527-1/-2
Flexural modulus	1.45E6 / 1.07E6	psi	ISO 178
Flexural strength	40600 / 27600	psi	ISO 178
Charpy impact strength, 23°C	40.4 / 42.8	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	5.71 / 8.09	ftlb/in²	ISO 179/1eA
Izod notched impact strength, 23°C	6.18 / -	ftlb/in²	ISO 180/1A
Poisson's ratio	0.413 / -[C]		

[C]: Calculated

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	504 / *	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	482 / *	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.13 / *	E-4/°F	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	0.507 / *	E-4/°F	ISO 11359-1/-2

Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	HB / *	class	IEC 60695-11-10

Physical/Other properties

	dry/cond.		
Density	0.0491 / -	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	176	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.15	%
Melt Temperature Optimum	563	°F
Min. melt temperature	545	°F
Max. melt temperature	581	°F
Max. screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	212	°F
Min. mold temperature	158	°F

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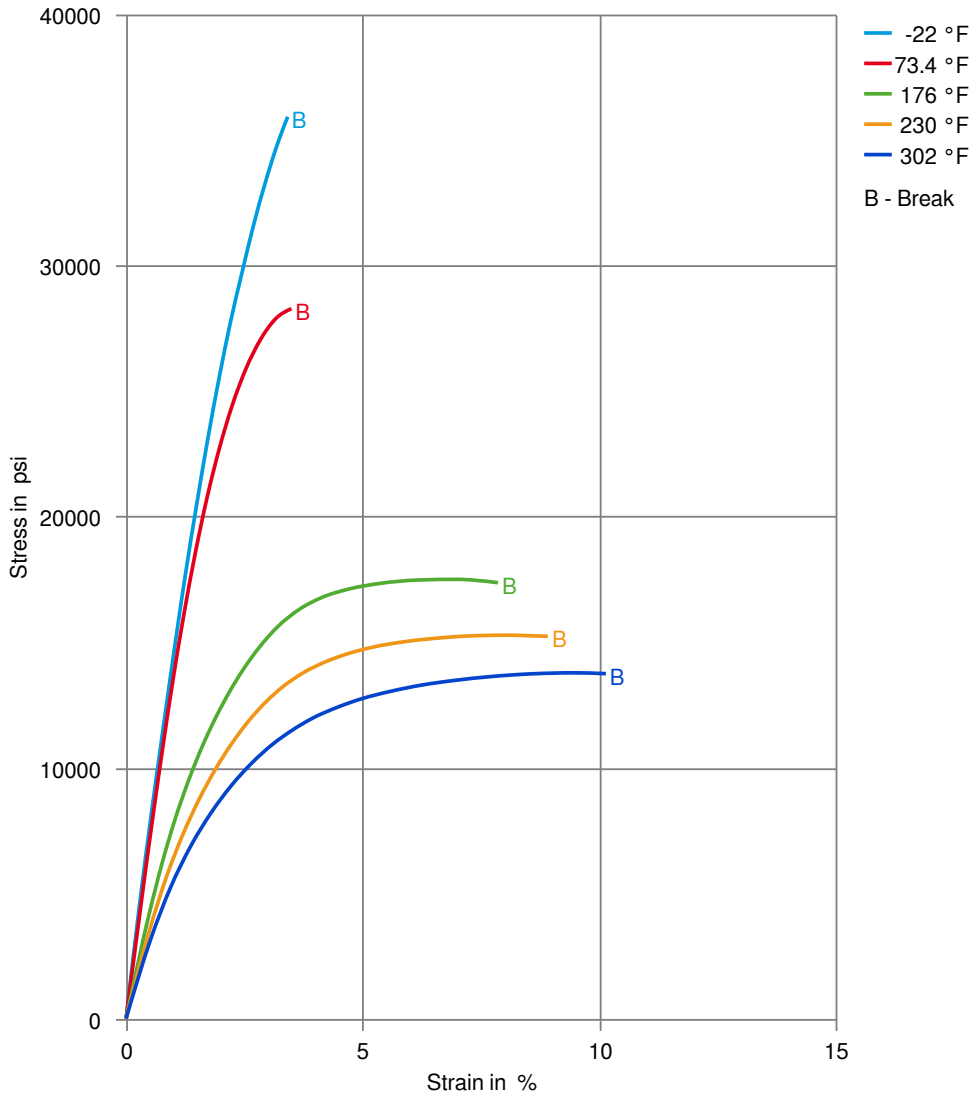
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Max. mold temperature	248 °F

Characteristics

Processing	Injection Molding
Special characteristics	Heat stabilized or stable to heat, Hydrolysis resistant, Chemical resistant

Stress-strain (dry)

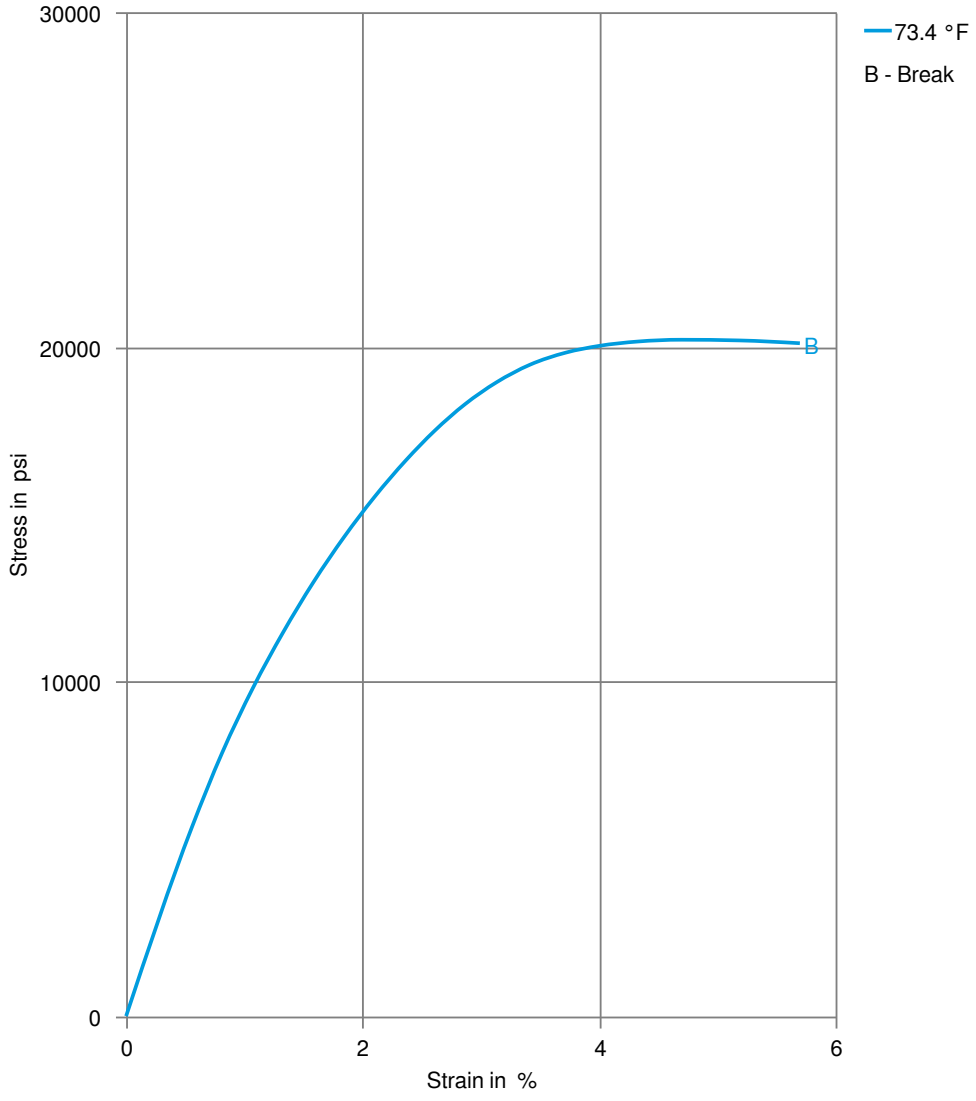


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Stress-strain (cond.)

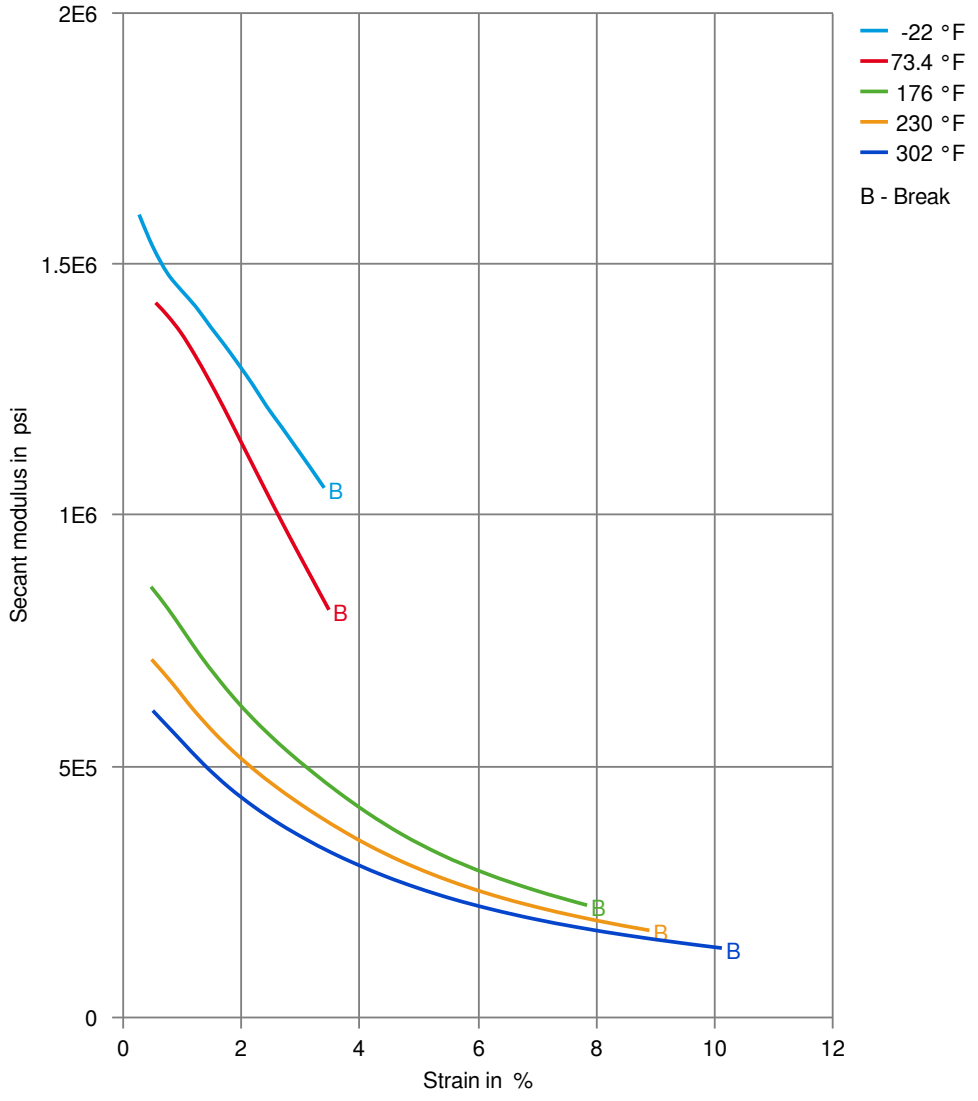


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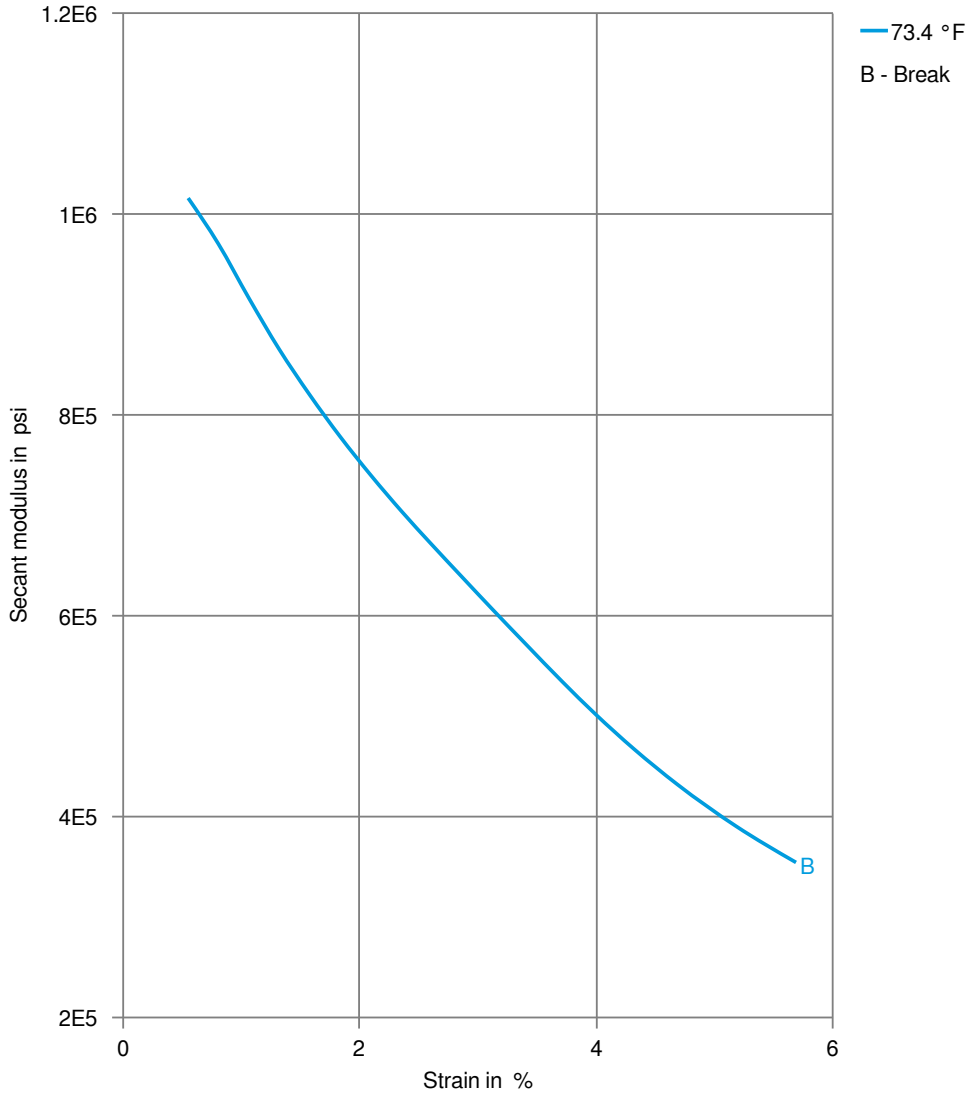
Secant modulus-strain (dry)



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Secant modulus-strain (cond.)



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