CELANYL® A3 HH GF50 BK 9005/AG

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Grade for technical uses, designed for Automotive parts under the hood. High stiffness and long term heat ageing resistance.

Product information

Resin Identification	PA66-GF50		ISO 1043
Part Marking Code	>PA66-GF50<		ISO 11469
Continuous Service Temperature	284	°F	IEC 60216-1

Rheological properties

	dry/cond.		
Melt volume-flow rate	15 / *	cm^3/10min	ISO 1133
Temperature	518 / *	°F	
Load	11 / *	lb	
Molding shrinkage, parallel	0.2 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.3 / -	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	2.47E6 / 1.89E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	33400 / 24700	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	2 / 2.8	%	ISO 527-1/-2
Flexural modulus	2.18E6 / -	psi	ISO 178
Flexural strength	45000 / -	psi	ISO 178
Charpy impact strength, 23°C	30.9 / 33.3	$ftlb/in^2$	ISO 179/1eU
Charpy notched impact strength, 23°C	6.18 / 7.14	$ftlb/in^2$	ISO 179/1eA
Izod notched impact strength, 23°C	6.18 / -	$ftlb/in^2$	ISO 180/1A

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	509 / *	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	495 / *	°F	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	500 / *	°F	ISO 75-1/-2

Flammability

	dry/cond.		
Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.0315 / *	in	IEC 60695-11-10
Glow Wire Flammability Index, 0.75mm	1200 / -	°F	IEC 60695-2-12
Glow Wire Flammability Index, 3.0mm	1200 / -	°F	IEC 60695-2-12

Electrical properties

	dry/cond.		
Electric strength	559 / -	kV/in	IEC 60243-1
Comparative tracking index	500 / -		IEC 60112

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.1 / *	%	Sim. to ISO 62
Water absorption, 2mm	3.5 / *	%	Sim. to ISO 62
Density	0.0567 / -	lb/in^3	ISO 1183

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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
Max. mold temperature	248	°F

Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
VW Group	VW 50127	*Best Fitting Grade To PA66-10, Not Officially Approved
VW Group	VW 50133	*Best Fitting Grade To PA66-8-A, Not Officially Approved

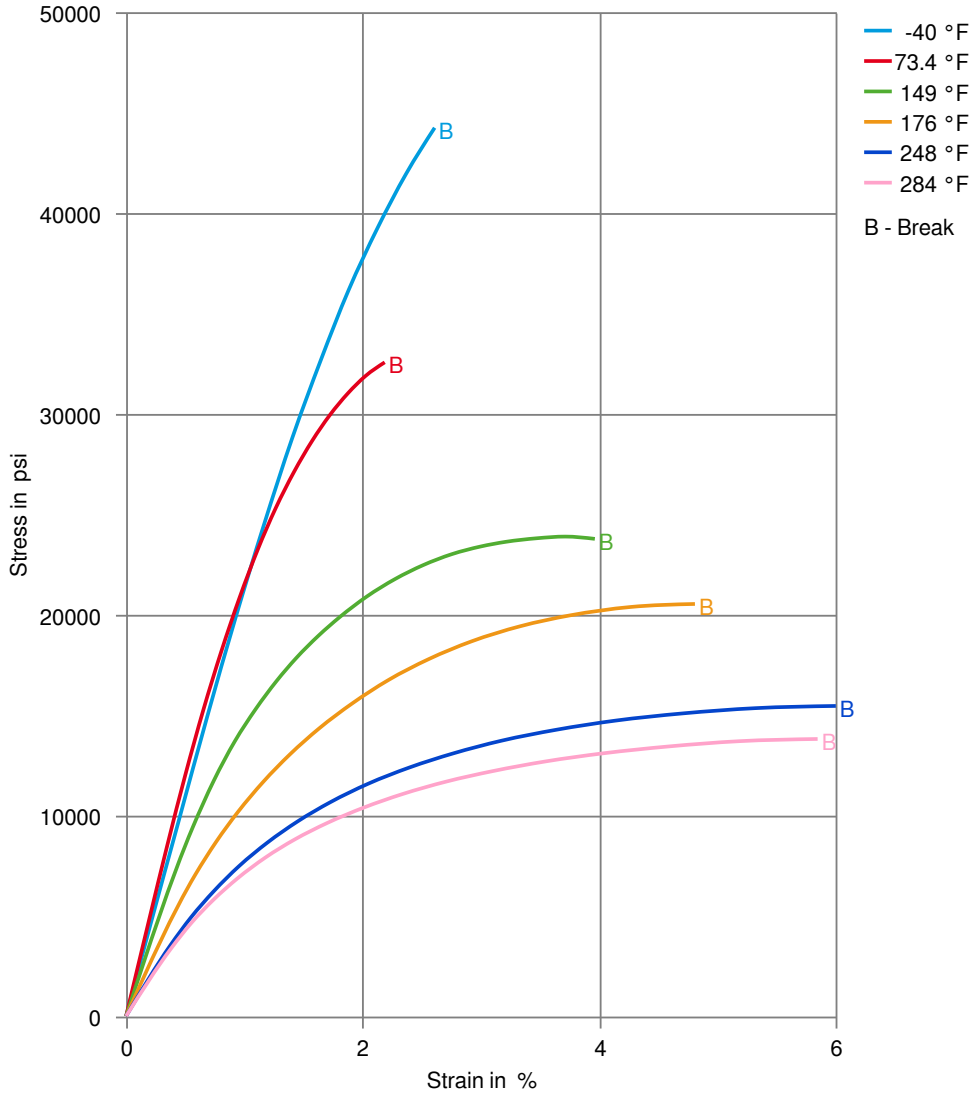
Characteristics

Processing	Injection Molding
Special characteristics	Heat stabilized or stable to heat

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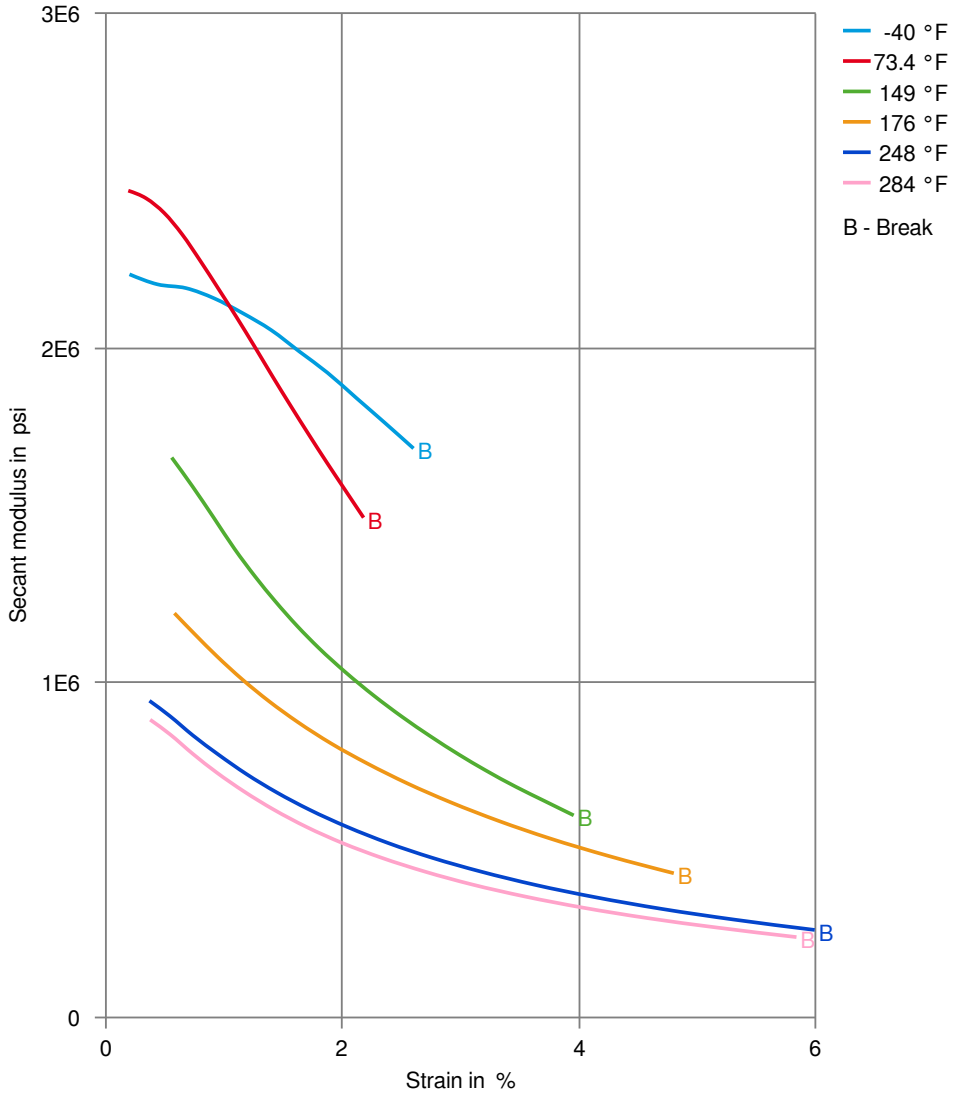
Stress-strain (dry)



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Secant modulus-strain (dry)



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