

CELANYL® A3 HH GF50 BK 9005/AG

CELANYL®

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	140 °C	IEC 60216-1

Rheological properties

	dry/cond.		
Melt volume-flow rate	15/*	cm ³ /10min	ISO 1133
Temperature	270/*	°C	
Load	5/*	kg	
Moulding shrinkage, parallel	0.2/-	%	ISO 294-4, 2577
Moulding shrinkage, normal	0.3/-	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	17000/13000	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	230/170	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2/2.8	%	ISO 527-1/-2
Flexural modulus	15000/-	MPa	ISO 178
Flexural strength	310/-	MPa	ISO 178
Charpy impact strength, 23°C	65/70	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	13/15	kJ/m ²	ISO 179/1eA
Izod notched impact strength, 23°C	13/-	kJ/m ²	ISO 180/1A
Poisson's ratio	0.33/0.33 ^[C]		
[C]: Calculated			

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	265/*	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	257/*	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	260/*	°C	ISO 75-1/-2

Flammability

	dry/cond.		
Burning Behav. at thickness h	HB/*	class	IEC 60695-11-10
Thickness tested	0.8/*	mm	IEC 60695-11-10
Glow Wire Flammability Index, 0.75mm	650/-	°C	IEC 60695-2-12
Glow Wire Flammability Index, 3.0mm	650/-	°C	IEC 60695-2-12

Electrical properties

	dry/cond.		
Electric strength	22/-	kV/mm	IEC 60243-1
Comparative tracking index	500/-		IEC 60112

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Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.1 / *	%	Sim. to ISO 62
Water absorption, 2mm	3.5 / *	%	Sim. to ISO 62
Density	1570 / -	kg/m ³	ISO 1183

Injection

Drying Recommended	yes
Drying Temperature	80 °C
Drying Time, Dehumidified Dryer	2 - 4 h
Processing Moisture Content	≤0.15 %
Melt Temperature Optimum	295 °C
Min. melt temperature	285 °C
Max. melt temperature	305 °C
Screw tangential speed	≤0.2 m/s
Mold Temperature Optimum	100 °C
Min. mould temperature	70 °C
Max. mould temperature	120 °C

Characteristics

Processing	Injection Moulding
Delivery form	Granules
Special characteristics	Heat stabilised or stable to heat

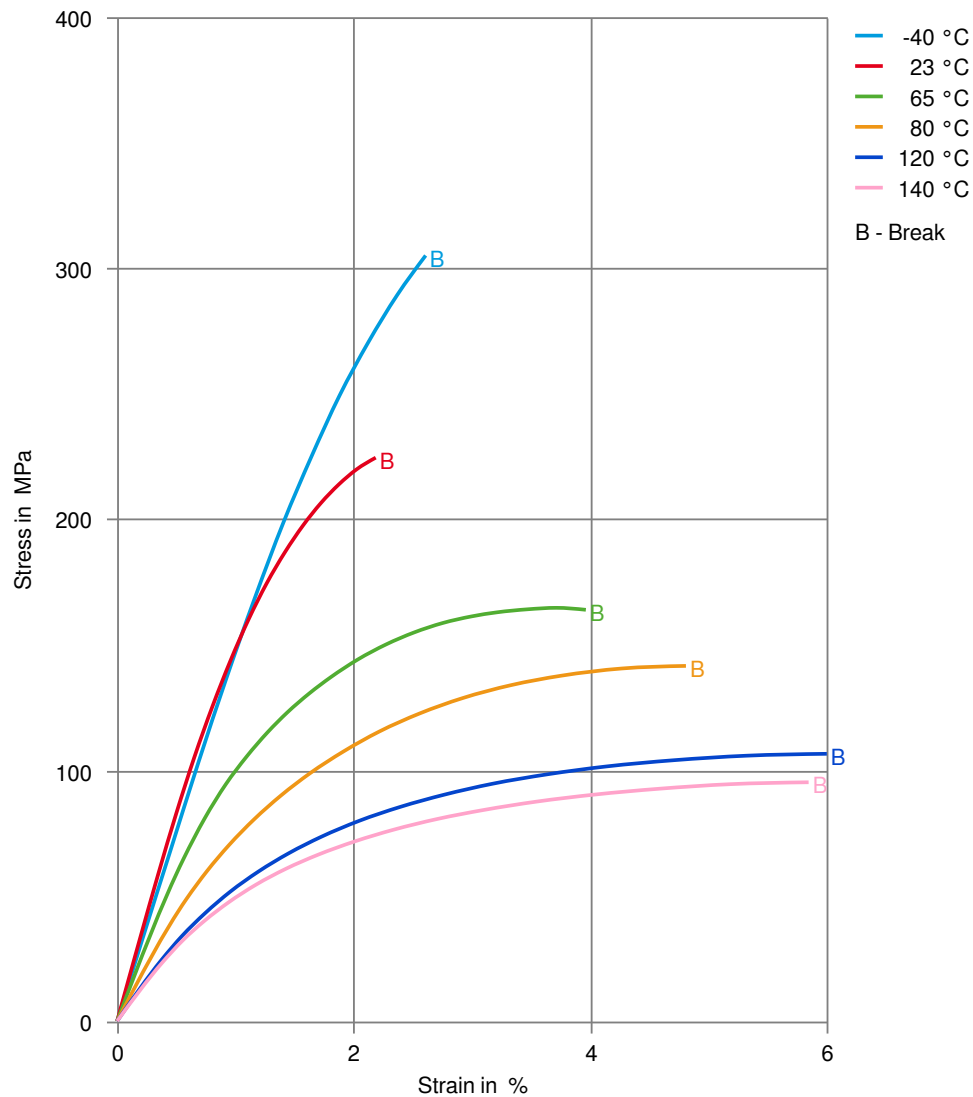
Automotive

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

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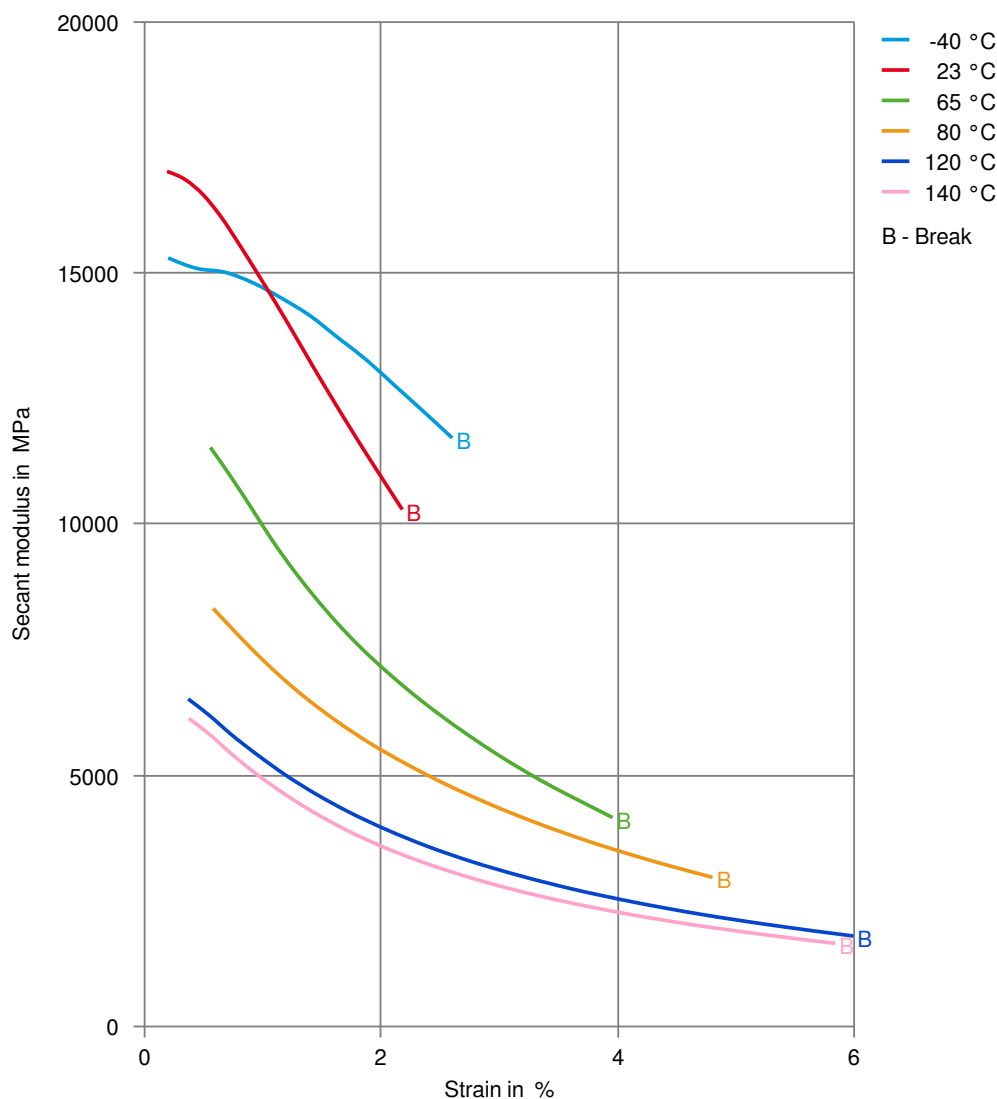
Stress-strain (dry)



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Secant modulus-strain (dry)



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