

ECOMID® ARX H GF50 BK 9005

ECOMID®

Designed for Automotive industry, suitable for other technical applications that require mechanical performance and long term heat ageing resistance.

Product information

Resin Identification	(PA66+PA6)-GF50	ISO 1043
Part Marking Code	>(PA66+PA6)-GF50<	ISO 11469
Continuous Service Temperature	130 °C	IEC 60216-1

Rheological properties

	dry/cond.		
Viscosity number	140 / *	cm ³ /g	ISO 307, 1628
Moulding shrinkage range, parallel	0.1 - 0.5	%	ISO 294-4, 2577
Moulding shrinkage range, normal	0.5 - 0.9	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	16300 / 12000 ^[C]	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	200 / 140	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.3 / 3.3 ^[C]	%	ISO 527-1/-2
Flexural modulus	14500 / -	MPa	ISO 178
Flexural strength	300 / -	MPa	ISO 178
Charpy impact strength, 23 °C	75 / 80	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30 °C	45 / -	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23 °C	14 / 16	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30 °C	8.5 / -	kJ/m ²	ISO 179/1eA
Ball indentation hardness, H 961/30	230 / -	MPa	ISO 2039-1
Poisson's ratio	0.33 / 0.33 ^[C]		

[C]: Calculated

Thermal properties

	dry/cond.		
Melting temperature, 10 °C/min	260 / *	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	235 / *	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	250 / *	°C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	20 ^[1] / *	E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	80 ^[1] / *	E-6/K	ISO 11359-1/-2

[1]: Temperature range: -30 °C to 70 °C

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.2 / *	%	Sim. to ISO 62
Water absorption, 2mm	4.1 / *	%	Sim. to ISO 62
Density	1560 / -	kg/m ³	ISO 1183

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Injection

Drying Recommended	yes
Drying Temperature	80 °C
Drying Time, Dehumidified Dryer	2 - 4 h
Processing Moisture Content	≤0.15 %
Melt Temperature Optimum	285 °C
Min. melt temperature	275 °C
Max. melt temperature	295 °C
Screw tangential speed	≤0.2 m/s
Mold Temperature Optimum	100 °C
Min. mould temperature	70 °C
Max. mould temperature	120 °C
Ejection temperature	210 °C

Characteristics

Processing	Injection Moulding
Special characteristics	Heat stabilised or stable to heat

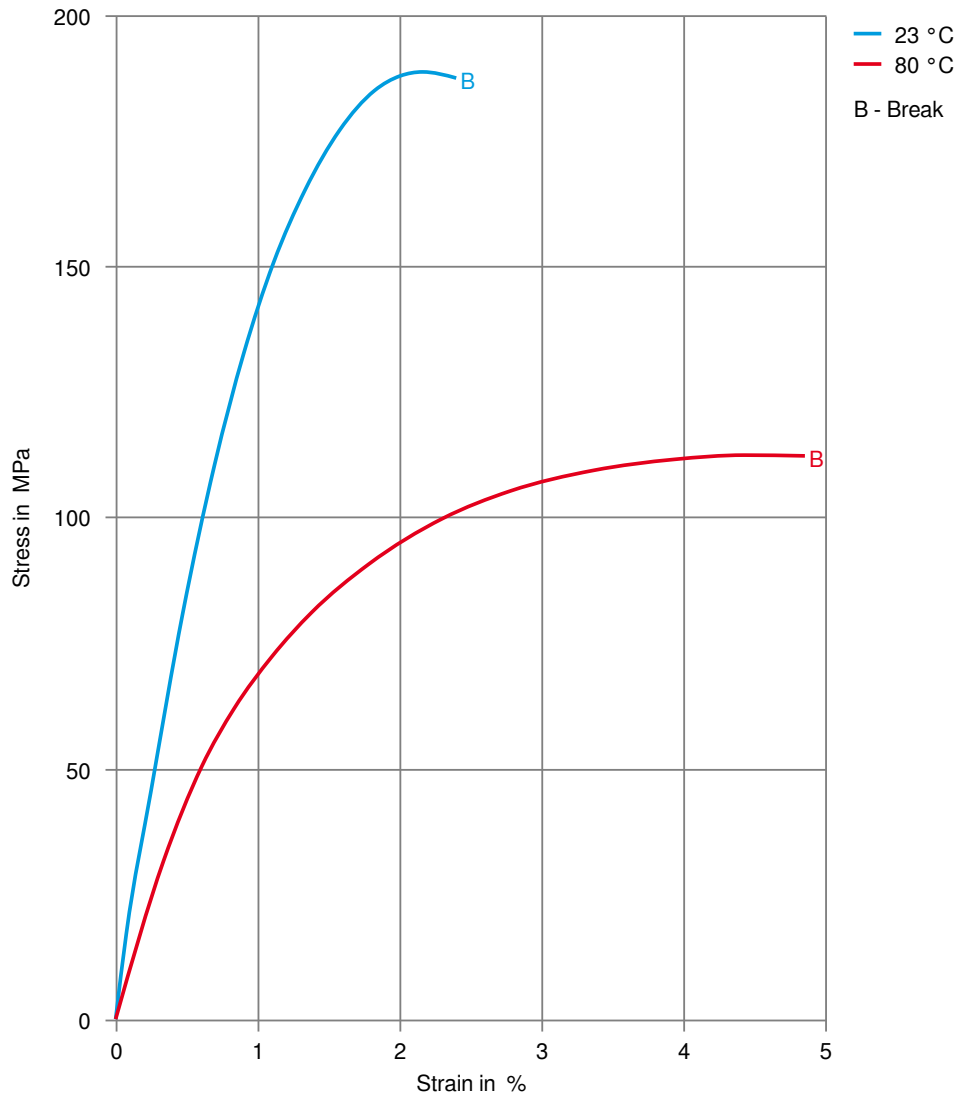
Automotive

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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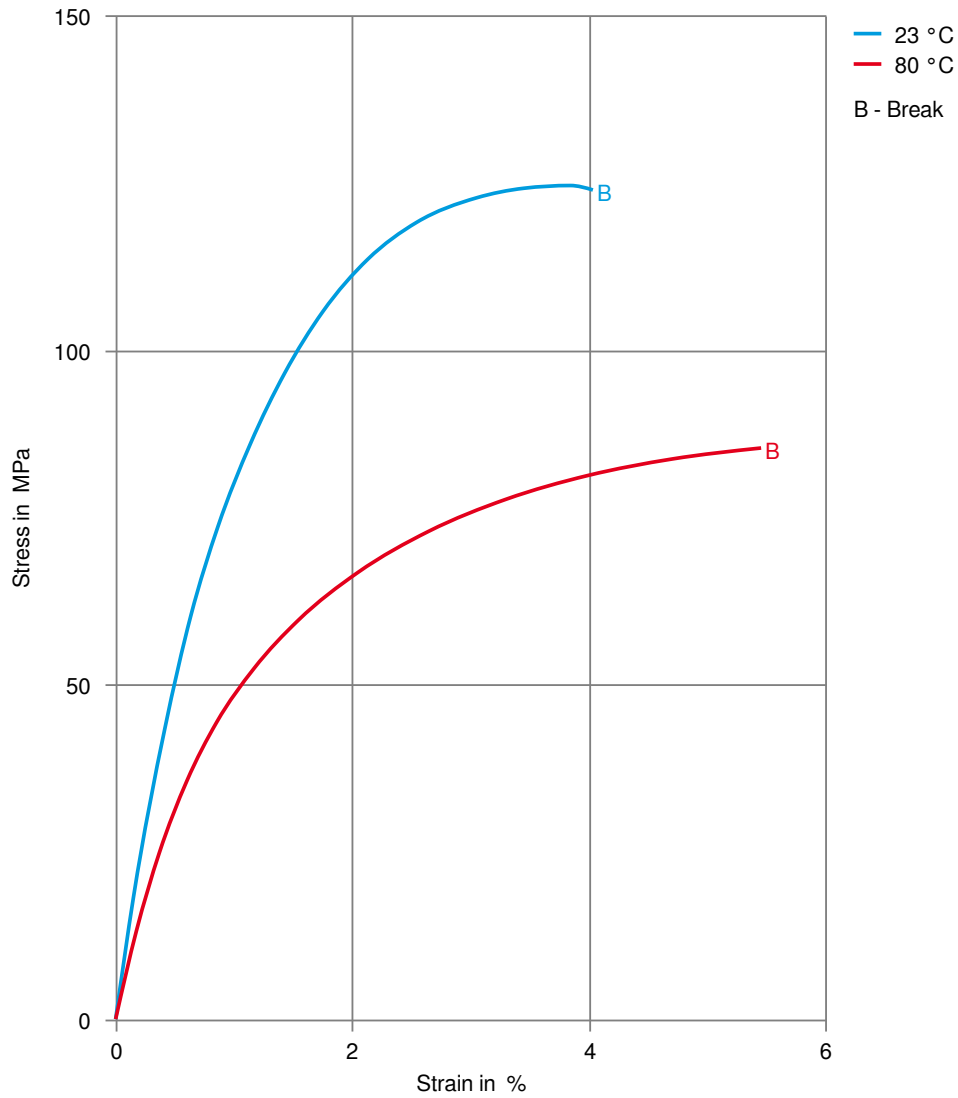
Stress-strain (dry)



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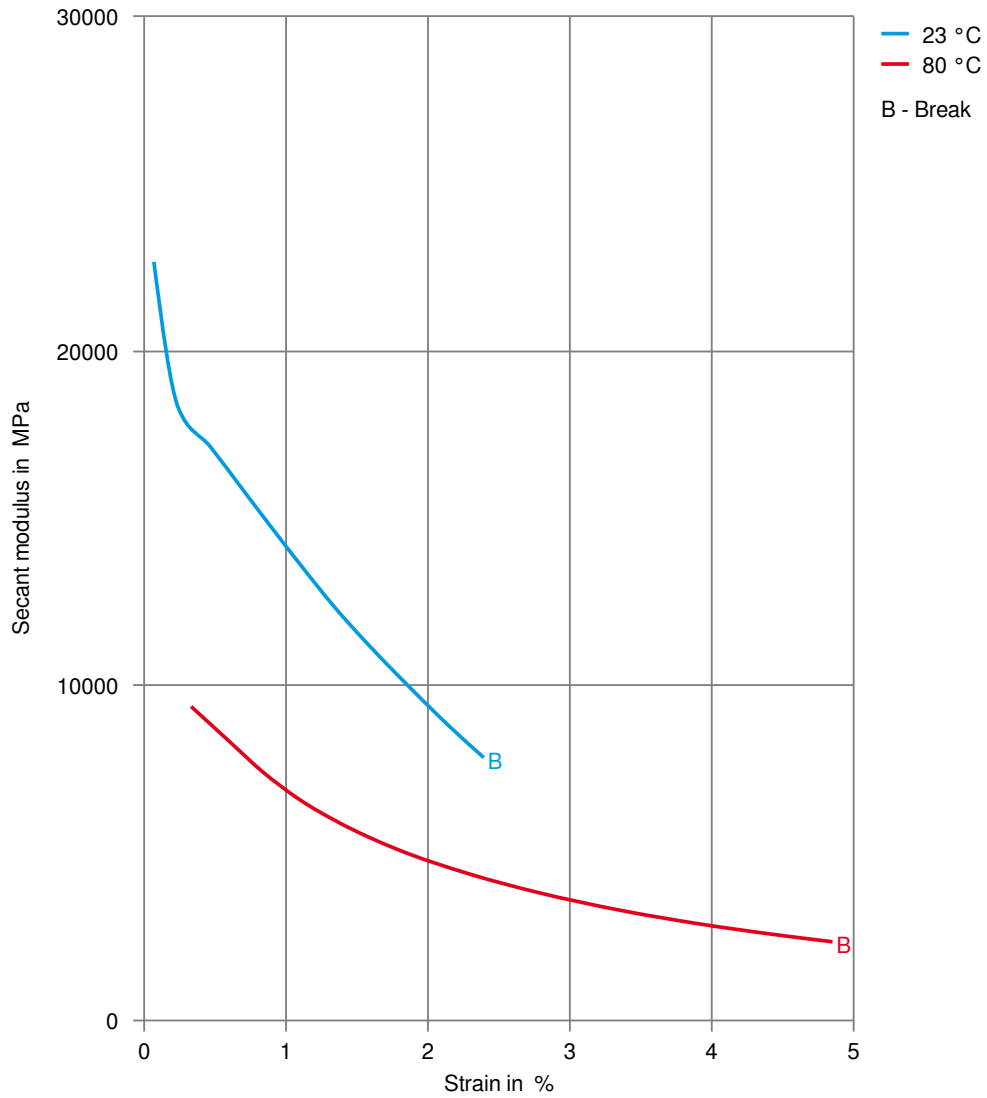
Stress-strain (cond.)



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Secant modulus-strain (dry)



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Secant modulus-strain (cond.)

