Celanese
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CELANYL® A3 GF60 BK 9005/N

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Car industry, Household appliances, Electrical devices.

Product information

Resin Identification	PA66-GF60		ISO 1043
Part Marking Code	>PA66-GF60<		ISO 11469
Continuous Service Temperature	110	°C	IEC 60216-1

Rheological properties

	dry/cond.		
Moulding shrinkage, parallel	0.2 / -	%	ISO 294-4, 2577
Moulding shrinkage, normal	0.4 / -	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	20500 / 15200	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	245 / 173	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.3 / 2.7	%	ISO 527-1/-2
Flexural modulus	19500 / -	MPa	ISO 178
Flexural strength	380 / -	MPa	ISO 178
Charpy impact strength, 23°C	70 / -	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	16.5 / -	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	13 / -	kJ/m²	ISO 180/1A
Poisson's ratio	0.371 / -[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	255 / *	°C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	17[1] / *	E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	95.3[1] / *	E-6/K	ISO 11359-1/-2

[1]: Temperature range: -30°C to 150°C

Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	IEC 60695-11-10
Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	IEC 60695-11-10

Electrical properties

	dry/cond.		
Electric strength	22 / -	kV/mm	IEC 60243-1

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	0.8 / *	%	Sim. to ISO 62
Water absorption, 2mm	3.2 / *	%	Sim. to ISO 62
Density	1700 / -	kg/m³	ISO 1183

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VDA Properties

Odour	4	class	VDA 270

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
Special characteristics	Heat stabilised or stable to heat, Specialty appearance, High Flow

Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
Stellantis - Chrysler	MS.50017 / CPN-5476	Black;ASTMD6779PA0110G60A67480

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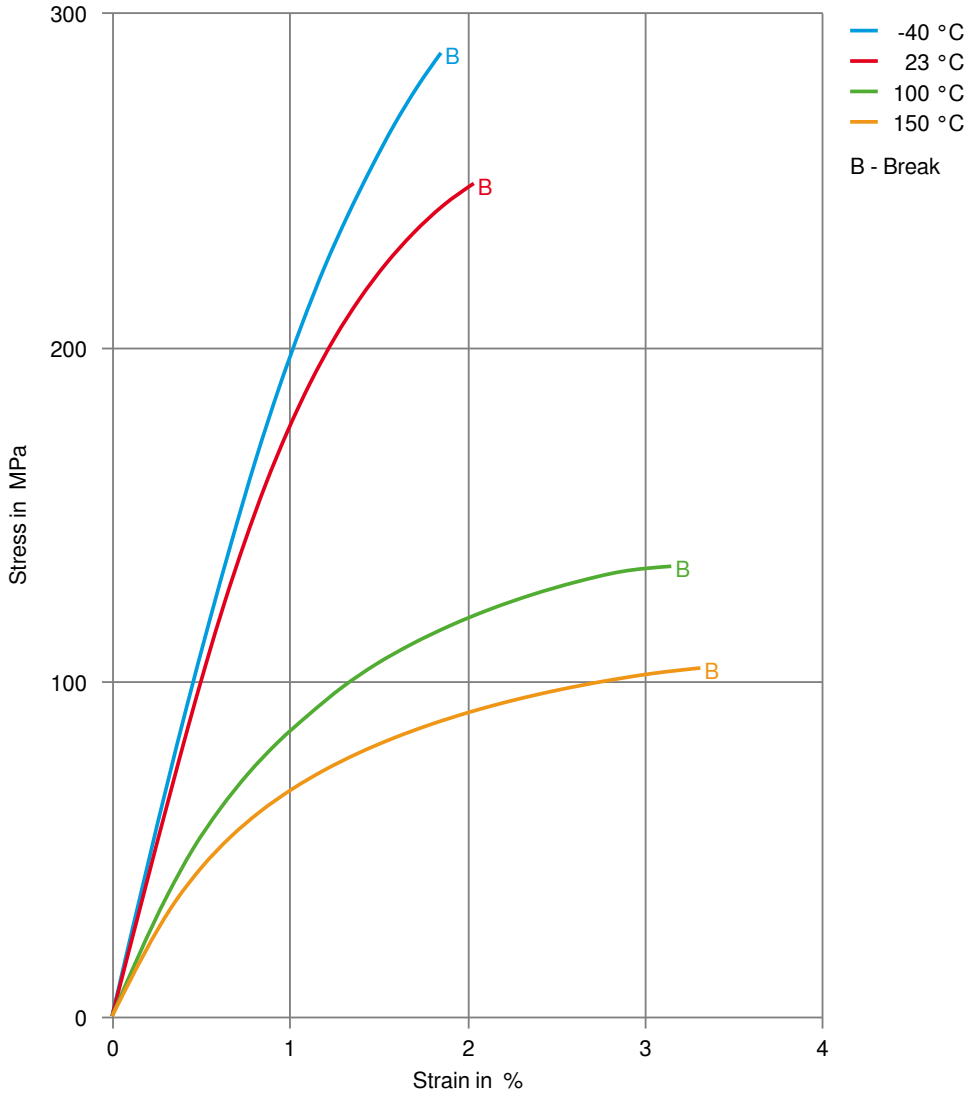
Stress-strain (dry)



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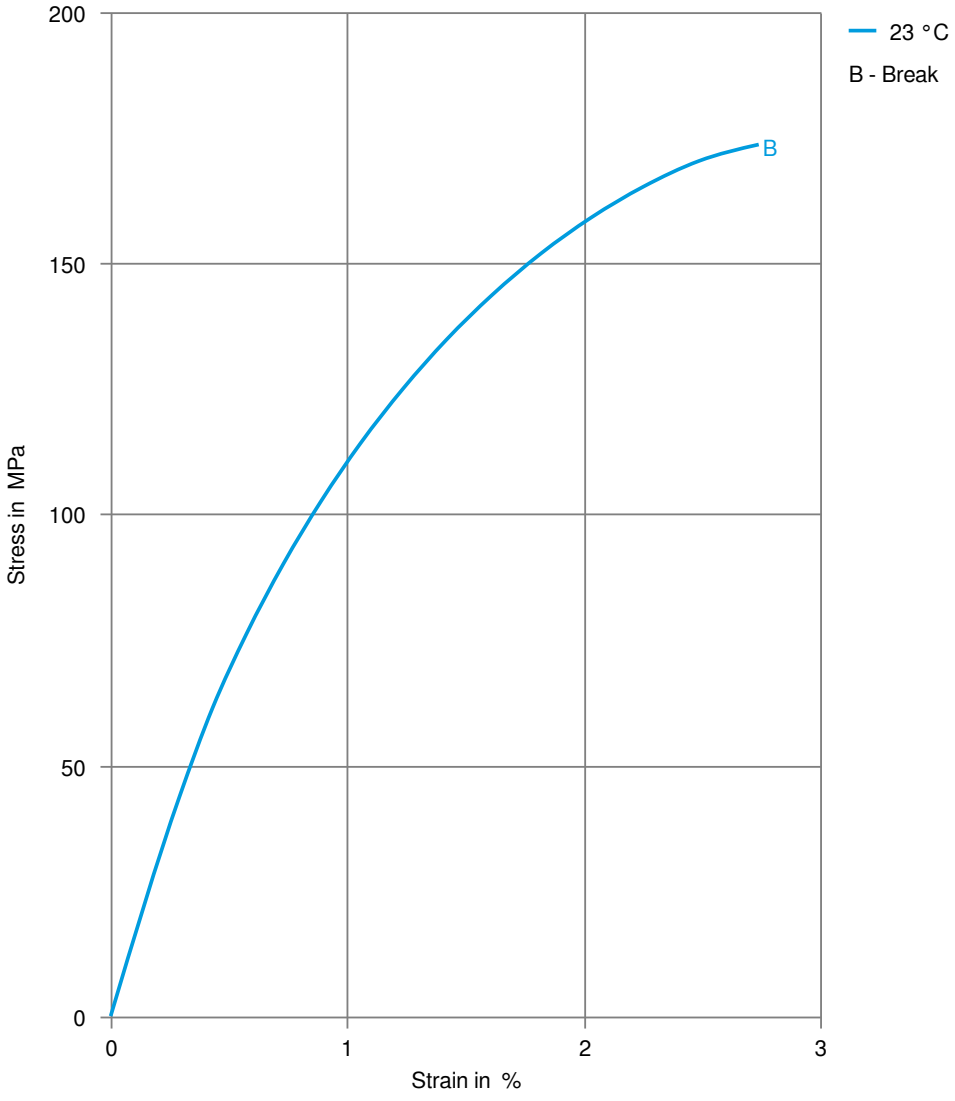
Stress-strain (cond.)



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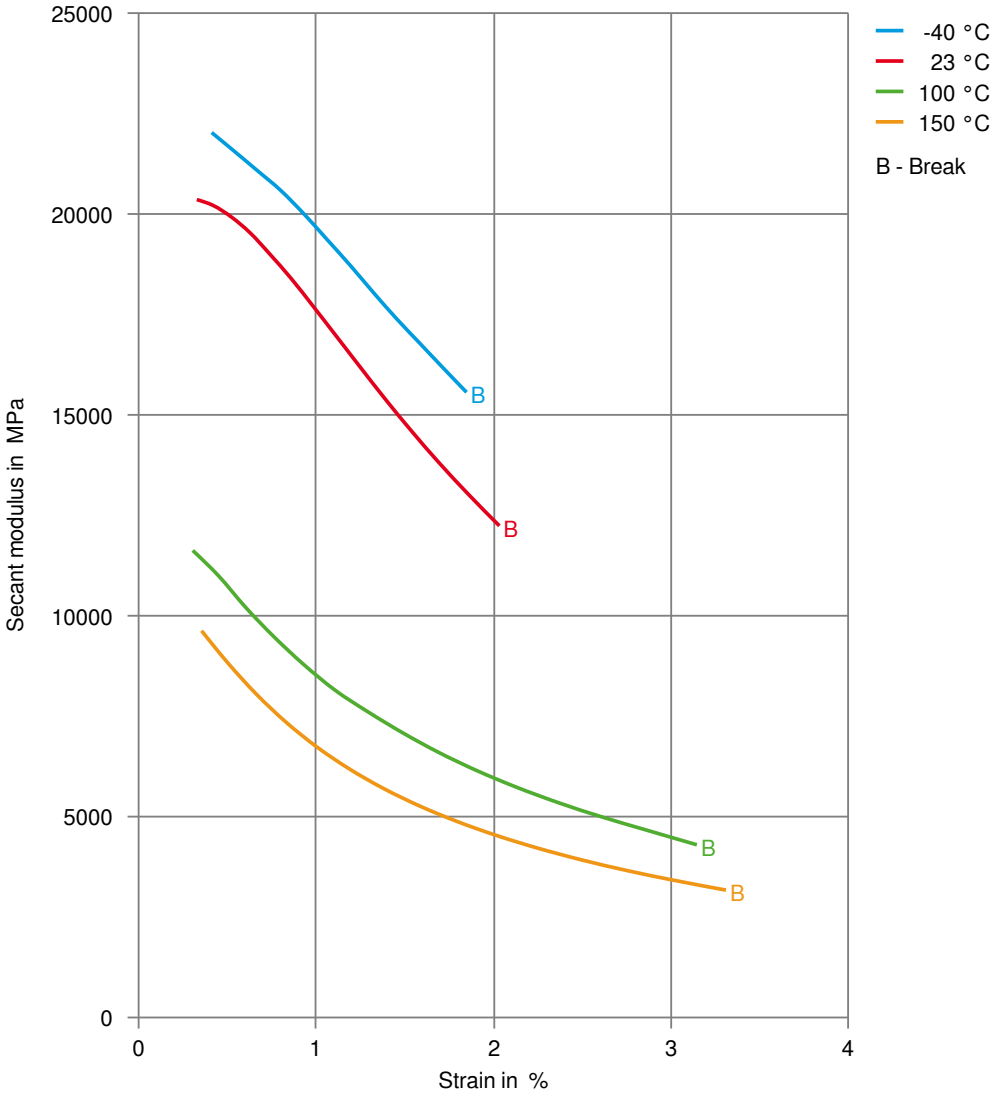
Secant modulus-strain (dry)



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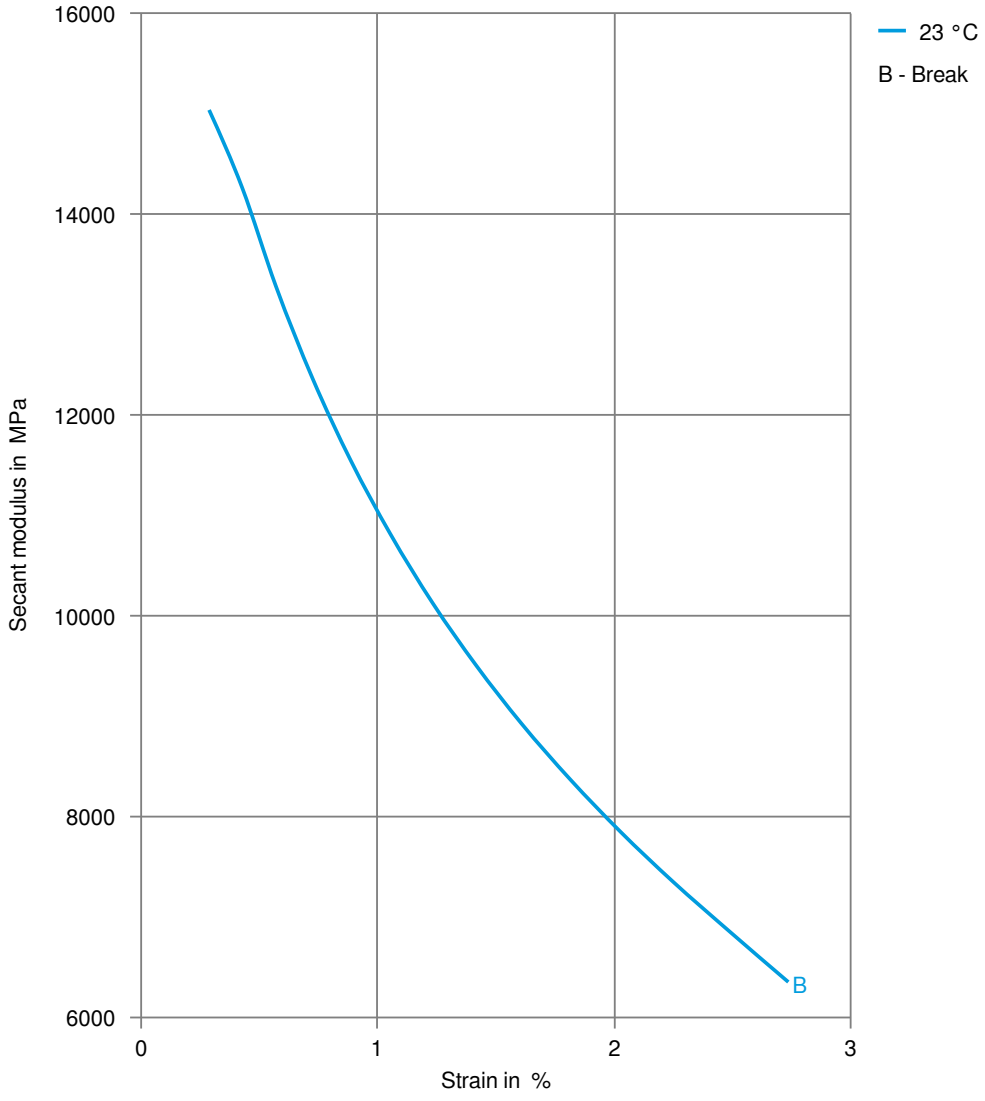
Secant modulus-strain (cond.)



Revised: 2024-08-16 Source: Celanese Materials Database