Celanese
The chemistry inside innovation™

CELSTRAN® PA66-GF40-02 AD3004 BLACK

CELSTRAN® Long Fibre

40% Long glass fiber reinforced, heat stabilized, Nylon 6/6

Product information

Resin Identification	PA66-LGF40	ISO 1043
Part Marking Code	>PA66-LGF40<	ISO 11469

Typical mechanical properties

	dry/cond.		
Tensile modulus	13300 / 11000	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	220 / 162	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	1.9 / 2.1	%	ISO 527-1/-2
Flexural modulus	11900 / 9000	MPa	ISO 178
Flexural strength	350 / 250	MPa	ISO 178
Charpy impact strength, 23 °C	67 / 74	kJ/m²	ISO 179/1eU
Charpy impact strength, -30 °C	61 / -	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23 °C	38 / 30	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30 °C	31 / -	kJ/m²	ISO 179/1eA
Poisson's ratio	0.33 / -[C]		

[C]: Calculated

Thermal properties

	dry/cond.		
Temperature of deflection under load, 1.8 MPa	259 / *	°C	ISO 75-1/-2
Temperature of deflection under load, 8 MPa	242 / *	°C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	17 / *	E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	94 / *	E-6/K	ISO 11359-1/-2

Physical/Other properties

	dry/cond.		
Density	1460 / -	kg/m³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	80	°C
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.2	%
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
Hold pressure range	50 - 100	MPa

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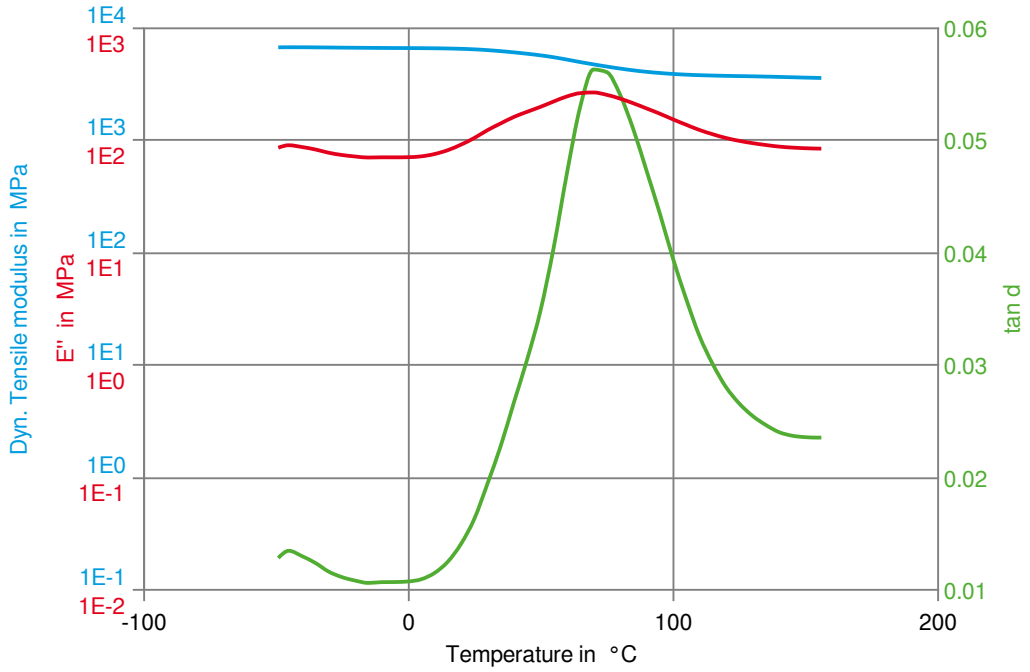
Characteristics

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

Dynamic Tensile modulus-temperature (dry)



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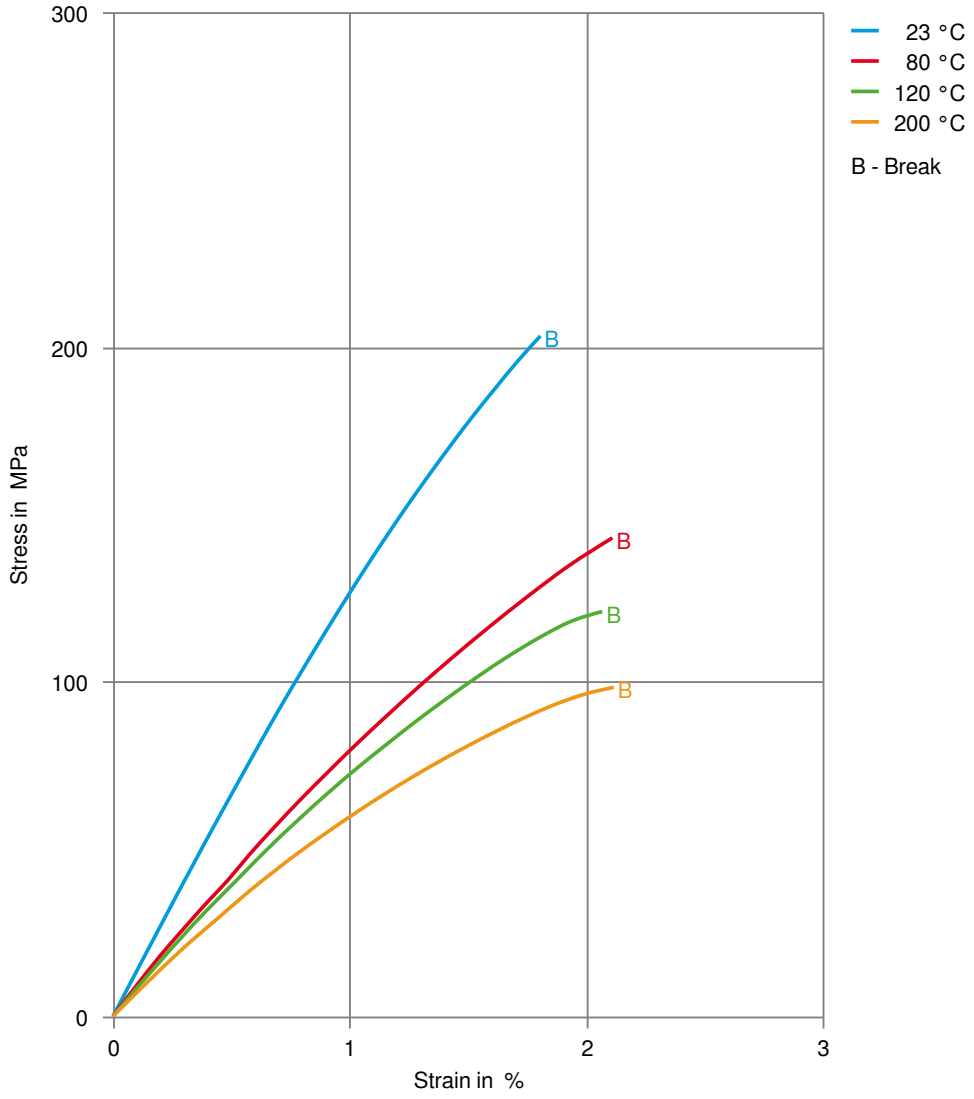
Stress-strain (dry)



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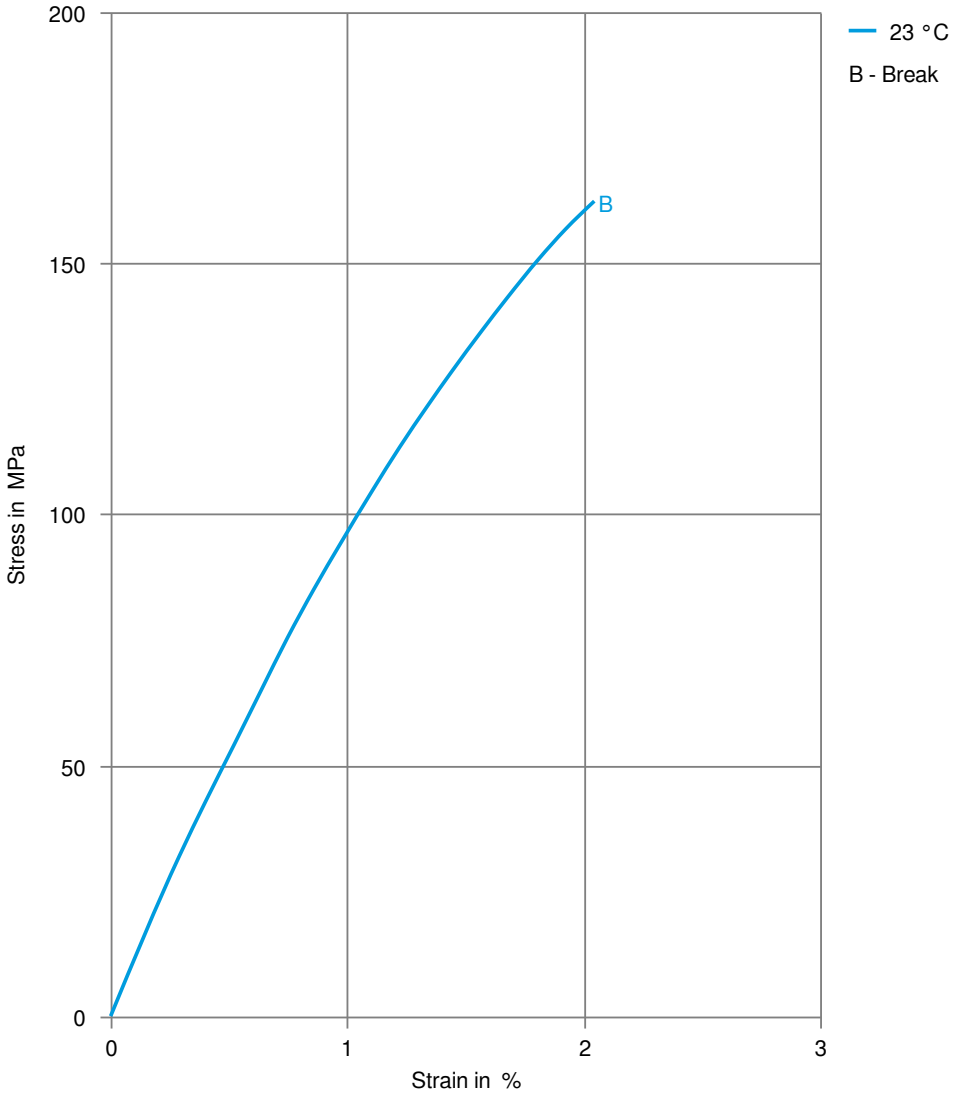
Stress-strain (cond.)



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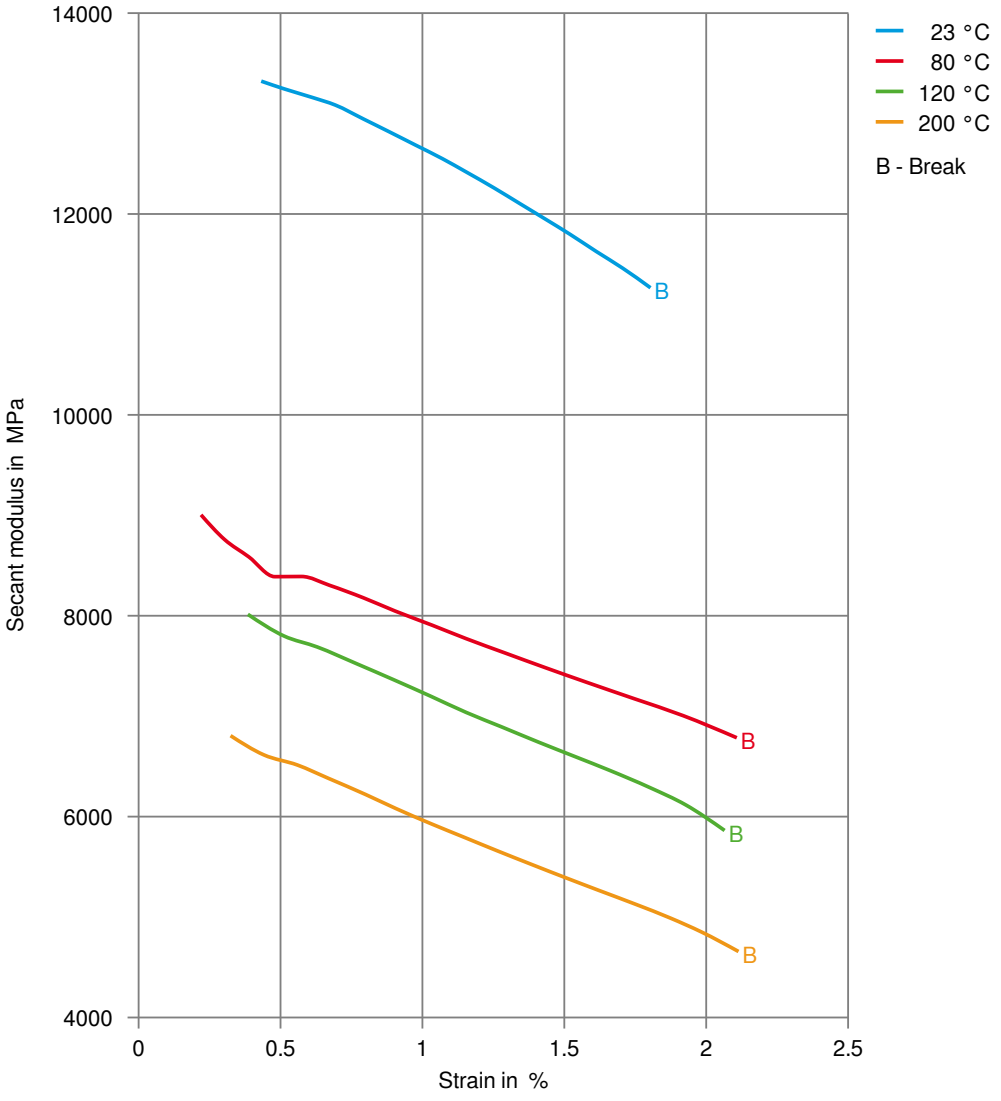
Secant modulus-strain (dry)



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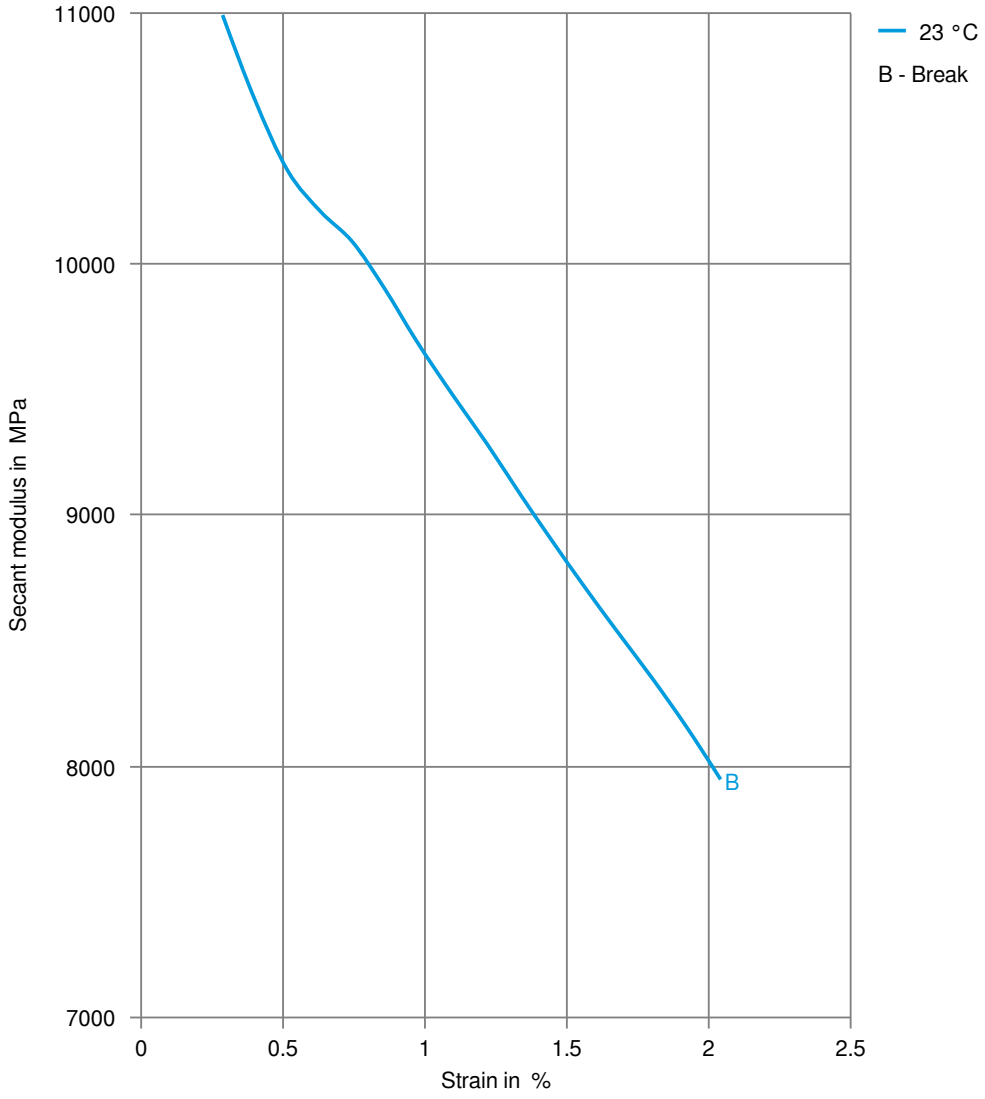
Secant modulus-strain (cond.)



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