Celanese
The chemistry inside innovation™

CELANYL® A3 H NC 1102/1

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Product information

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

Rheological properties

Moulding shrinkage range, parallel	1 - 1.5 %	ISO 294-4, 2577
Moulding shrinkage range, normal	1 - 1.5 %	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	3350 / 1580	MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	85 / 58	MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	4.3 / 20	%	ISO 527-1/-2
Tensile strain at break, 50mm/min	10 / -	%	ISO 527-1/-2
Flexural modulus	3300 / 1240	MPa	ISO 178
Flexural strength	100 / 35	MPa	ISO 178
Charpy notched impact strength, 23 °C	4 / 12.5	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23 °C	4 / -	kJ/m²	ISO 180/1A
Poisson's ratio	0.37 / 0.42[C]		

[C]: Calculated

Thermal properties

	dry/cond.		
Temperature of deflection under load, 1.8 MPa	66 / *	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	204 / *	°C	ISO 75-1/-2

Flammability

	dry/cond.		
Burning Behav. at thickness h	V-2 / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	IEC 60695-11-10
FMVSS Class	SE		ISO 3795 (FMVSS 302)

Physical/Other properties

	dry/cond.		
Density	1140 / -	kg/m³	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	290	°C
Min. melt temperature	280	°C
Max. melt temperature	300	°C
Screw tangential speed	≤0.4	m/s
Mold Temperature Optimum	70	°C
Min. mould temperature	50	°C
Max. mould temperature	90	°C

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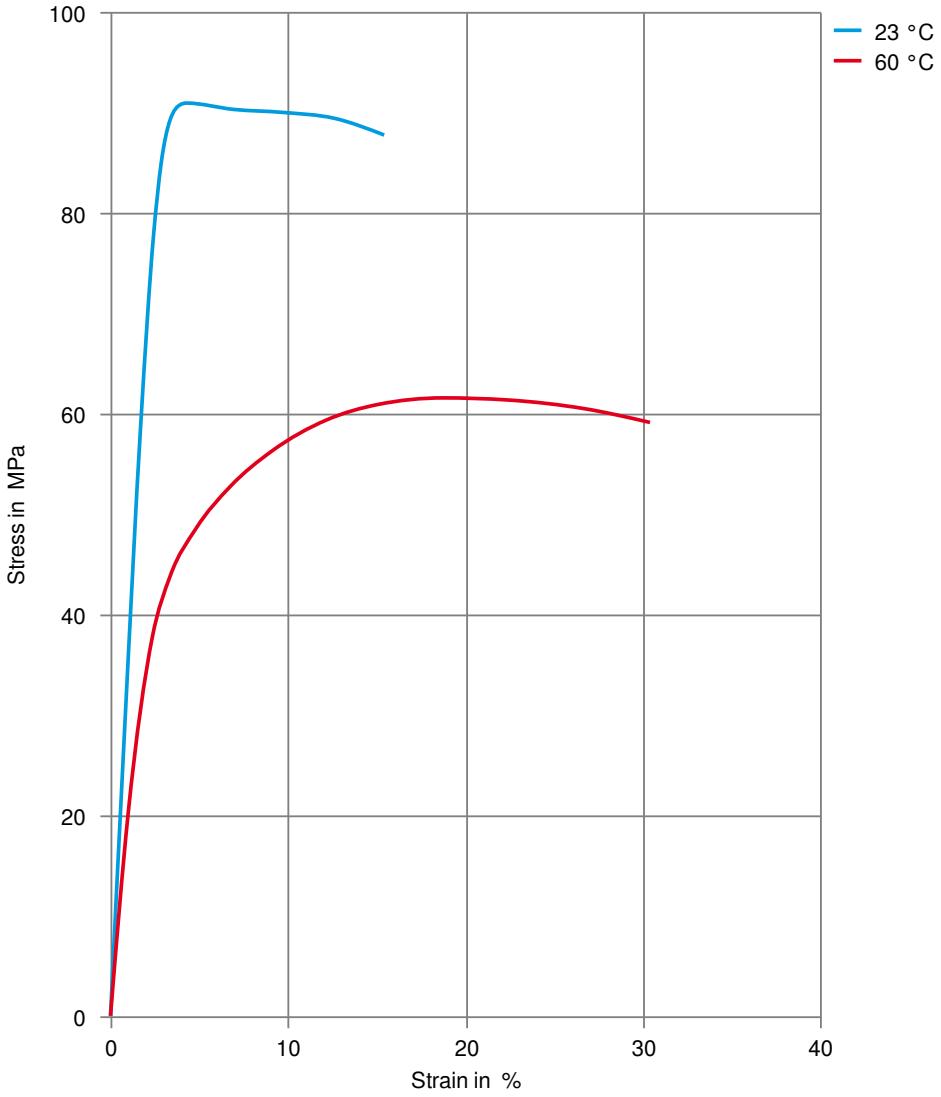
Characteristics

Processing	Injection Moulding
Special characteristics	Heat stabilised or stable to heat, Low wear / Low friction

Stress-strain (dry)



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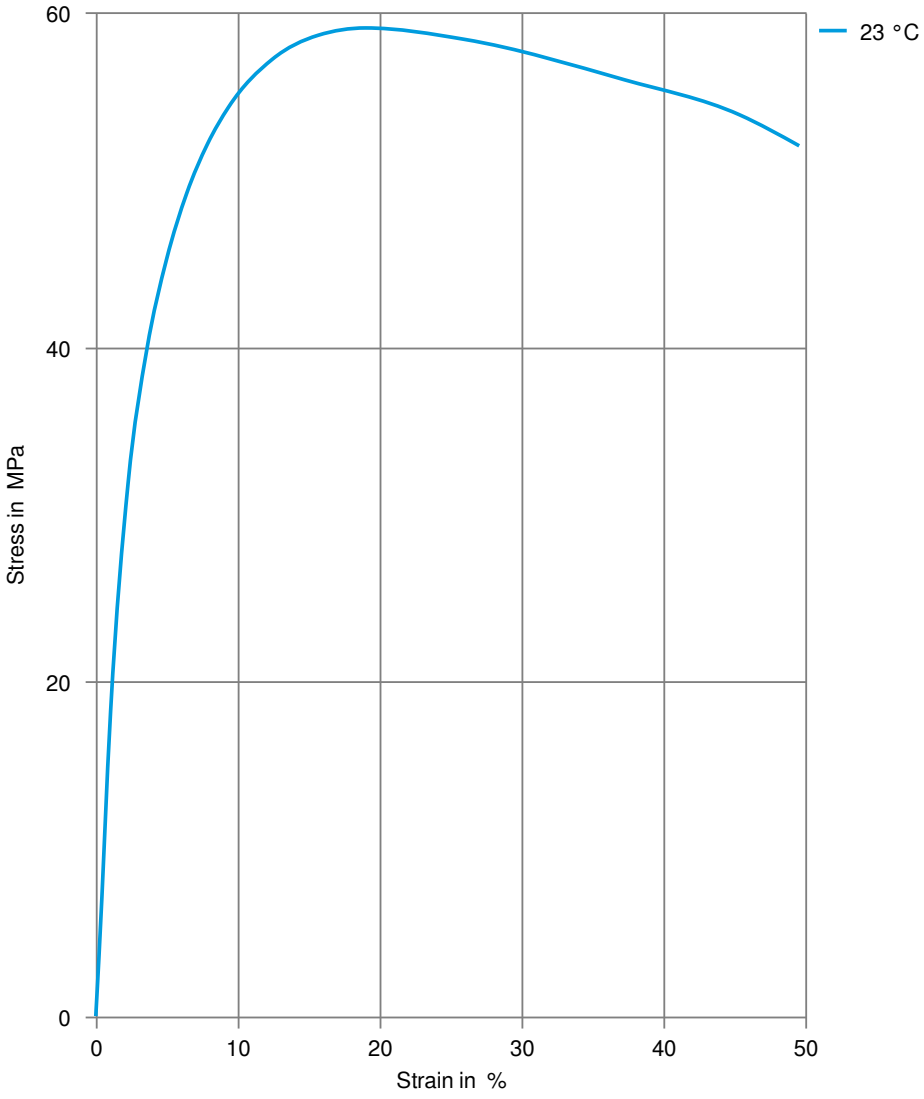
Stress-strain (cond.)



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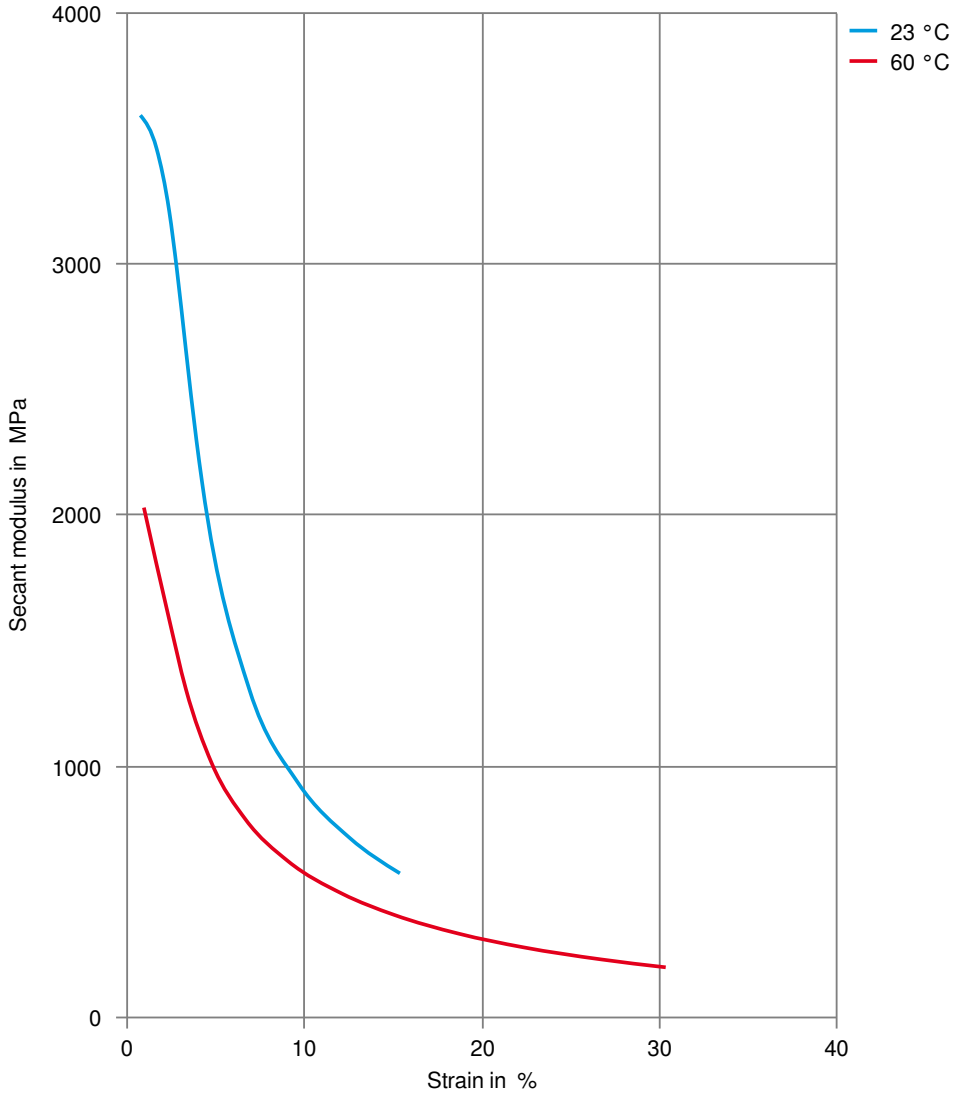
Secant modulus-strain (dry)



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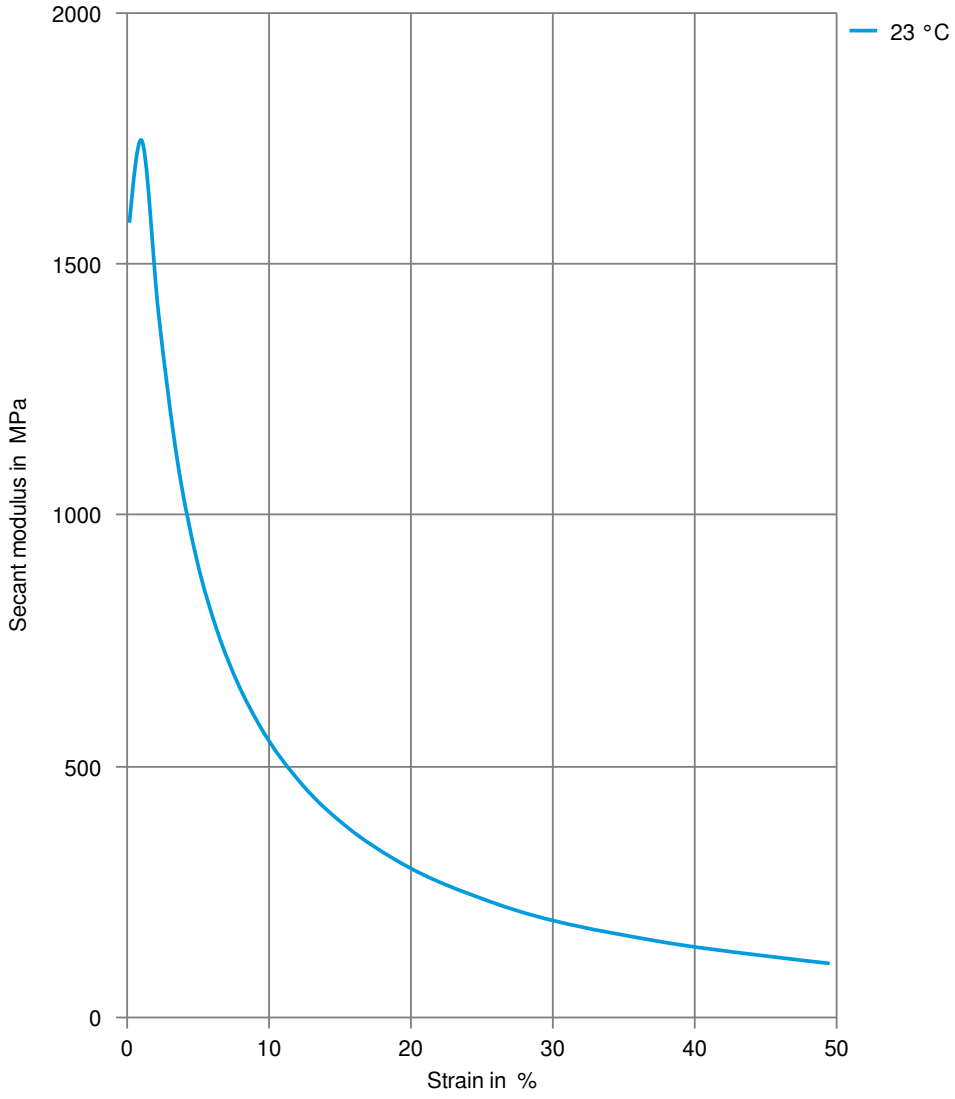
Secant modulus-strain (cond.)



Revised: 2025-04-18 Source: Celanese Materials Database