

# CELANYL® A3 H J20 BK 9005/2

## CELANYL®

*Toughened grade for outstanding impact resistance over a wide temperature range. Long term heat ageing resistance.*

### Product information

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

### Rheological properties

Moulding shrinkage range, parallel	1.4 - 1.8 %	ISO 294-4, 2577
Moulding shrinkage range, normal	1.4 - 1.8 %	ISO 294-4, 2577

### Typical mechanical properties

	dry/cond.		
Tensile modulus	1900 / 750	MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	48 / -	MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	5.5 / -	%	ISO 527-1/-2
Tensile stress at break, 50mm/min	44 / 41	MPa	ISO 527-1/-2
Tensile strain at break, 50mm/min	35 / 200	%	ISO 527-1/-2
Flexural modulus	1900 / 670	MPa	ISO 178
Flexural strength	68 / 26	MPa	ISO 178
Charpy impact strength, 23 °C	180 / N	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, 23 °C	80 / 120	kJ/m <sup>2</sup>	ISO 179/1eA
Poisson's ratio	0.41 / 0.46 <sup>[C]</sup>		
[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	60 / *	°C	ISO 75-1/-2

### Flammability

FMVSS Class	B	ISO 3795 (FMVSS 302)
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### Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.8 / *	%	Sim. to ISO 62
Water absorption, 2mm	6.5 / *	%	Sim. to ISO 62
Density	1070 / -	kg/m <sup>3</sup>	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	≤0.3 m/s
Mold Temperature Optimum	80 °C
Min. mould temperature	50 °C

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Max. mould temperature

100 °C

### Characteristics

Processing

Injection Moulding

Delivery form

Granules

Special characteristics

High impact or impact modified, Heat stabilised or stable to heat

### Automotive

OEM

STANDARD

ADDITIONAL INFORMATION

VW Group

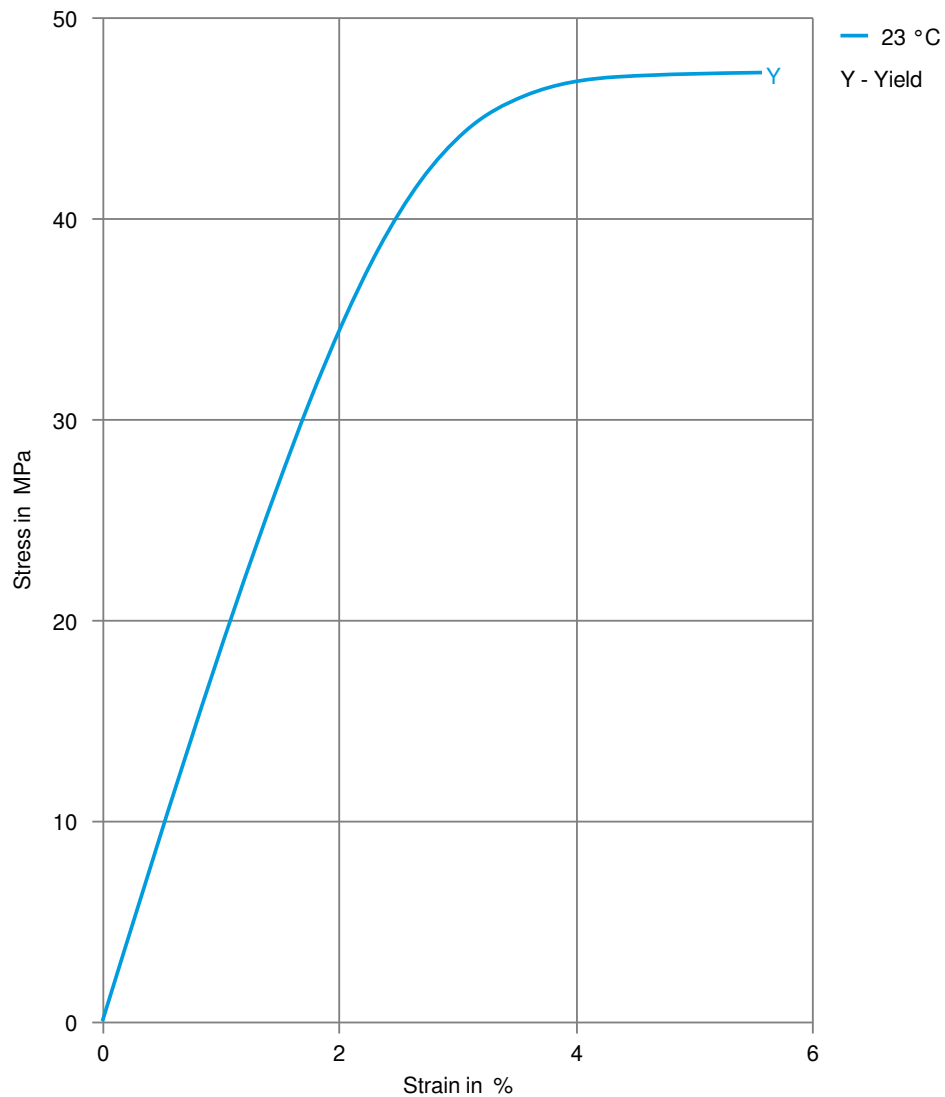
VW 50127

\*Best Fitting Grade To PA66-3, Not Officially  
Approved

# CELANYL® A3 H J20 BK 9005/2

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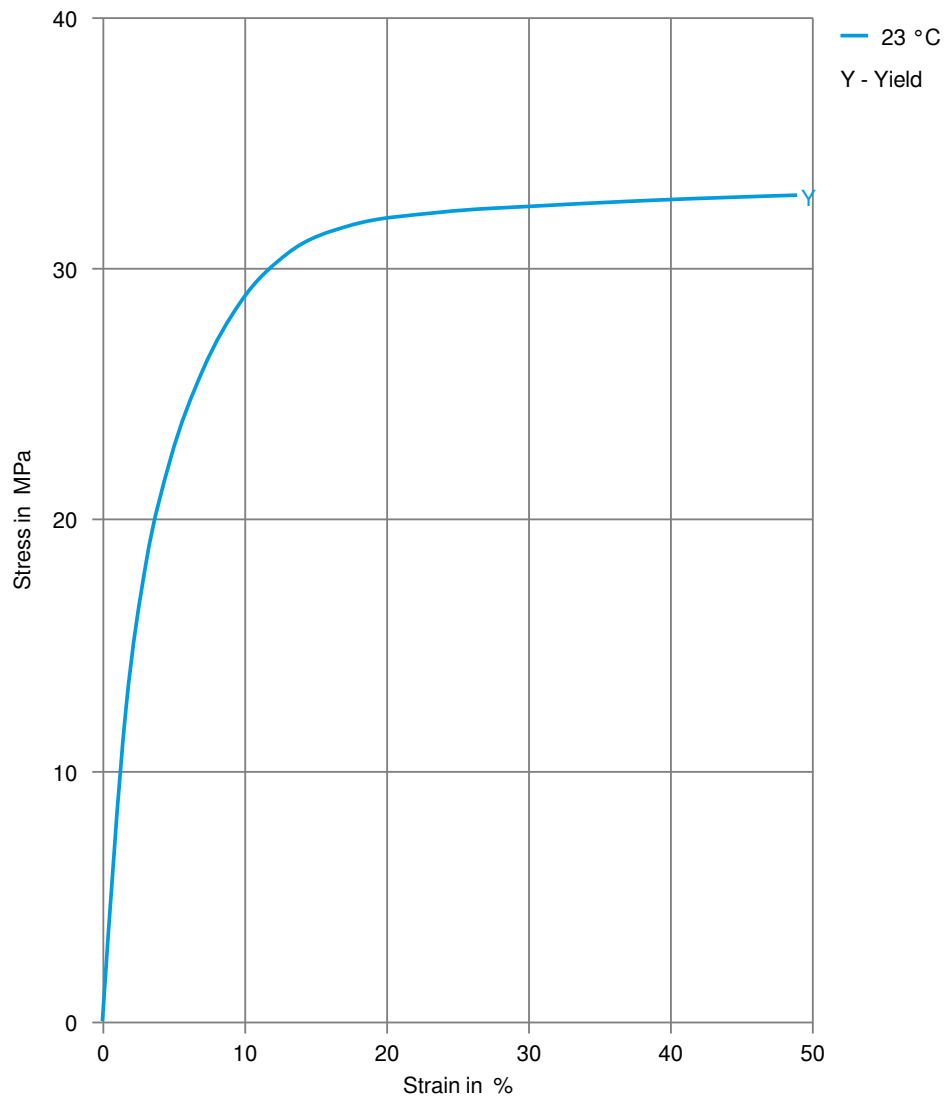
## Stress-strain (dry)



# CELANYL® A3 H J20 BK 9005/2

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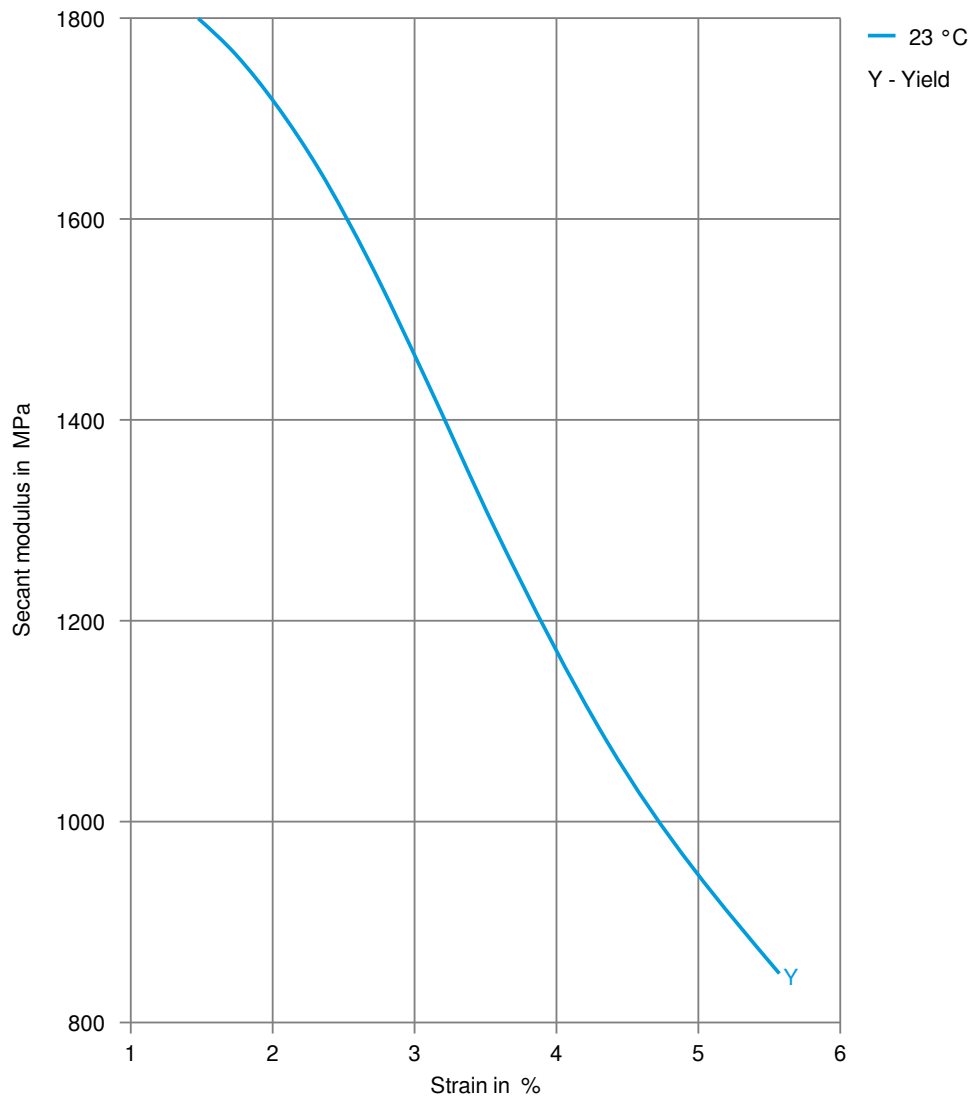
## Stress-strain (cond.)



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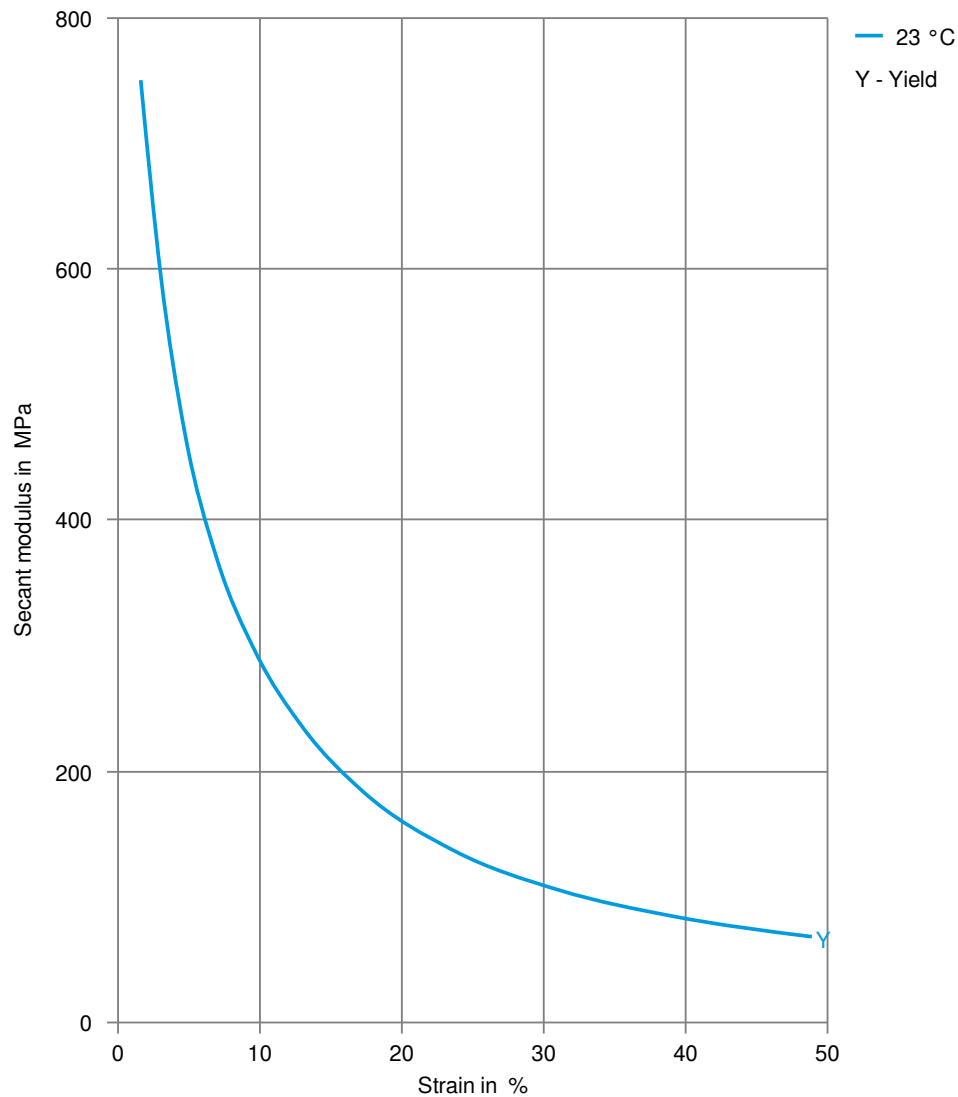
## Secant modulus-strain (dry)



# CELANYL® A3 H J20 BK 9005/2

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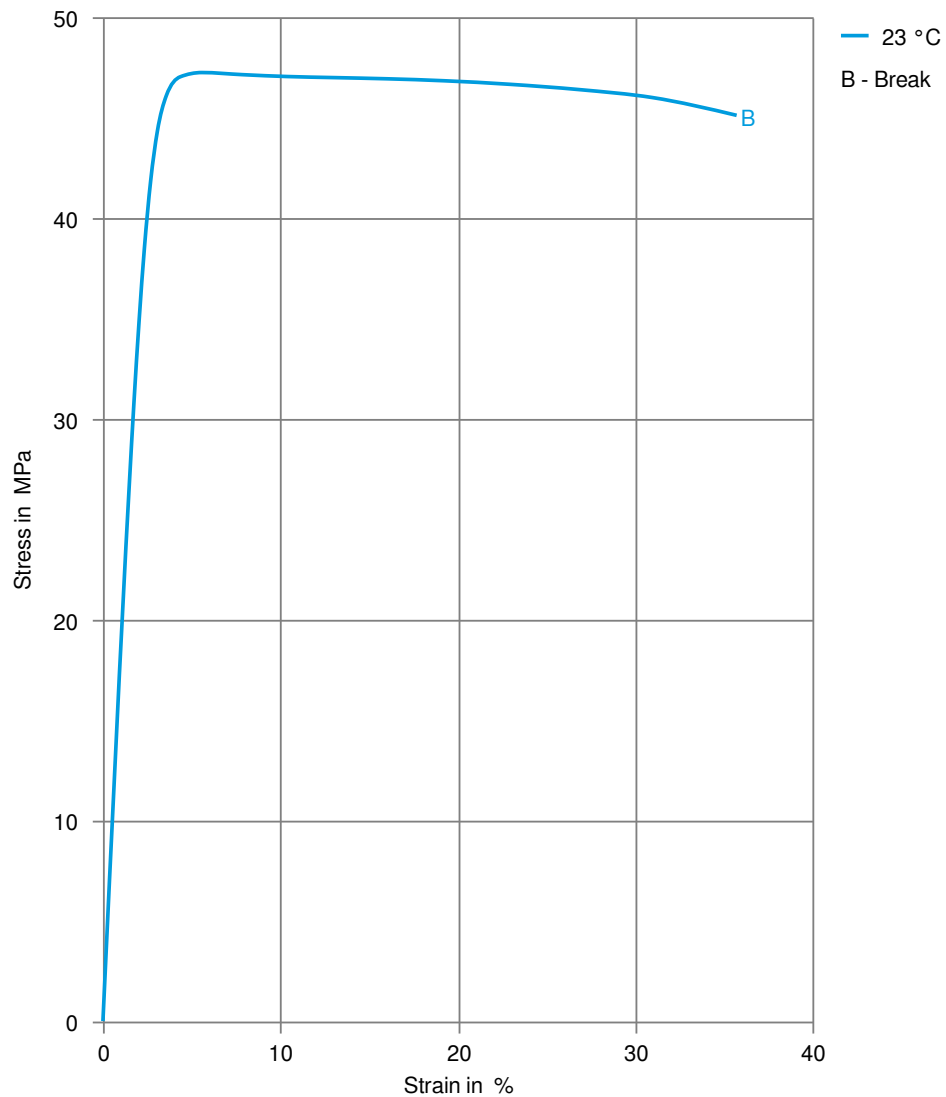
## Secant modulus-strain (cond.)



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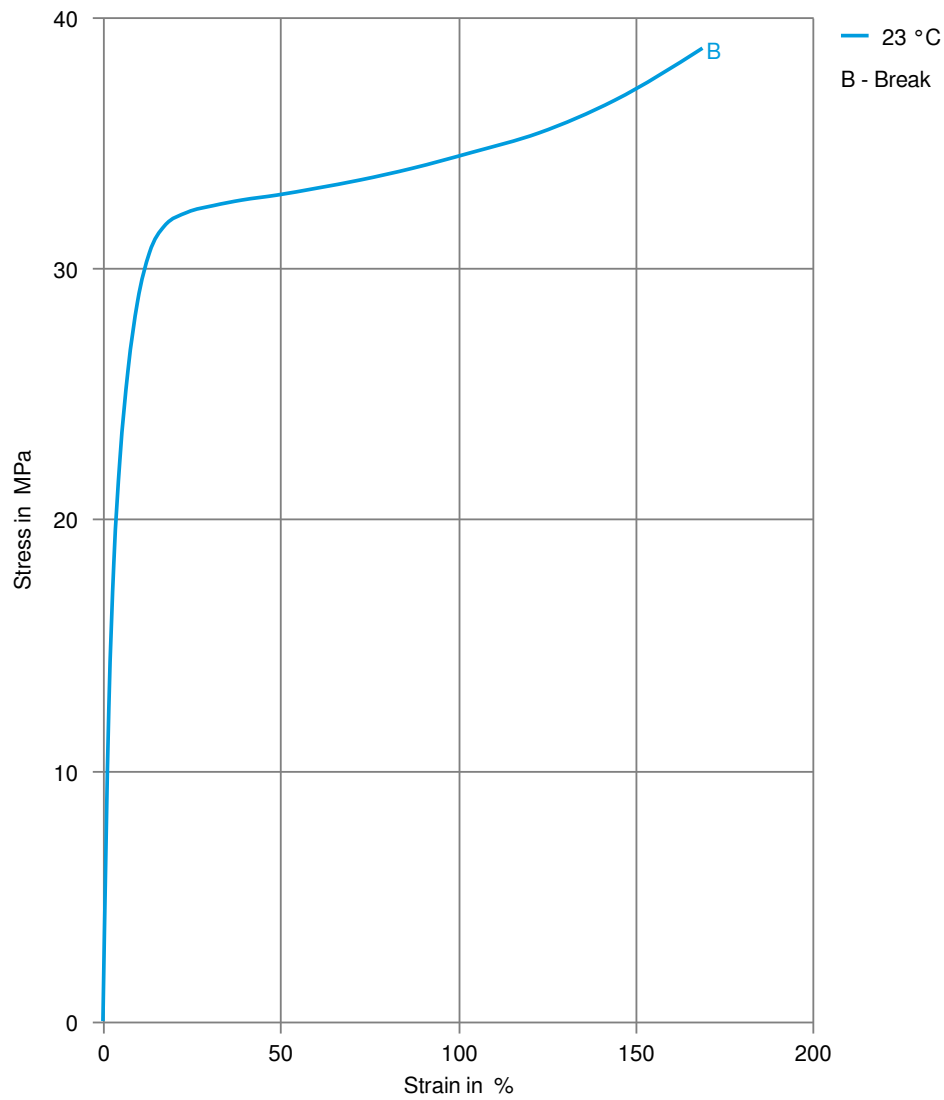
Stress-strain, 50mm/min (dry)



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Stress-strain, 50mm/min (cond.)

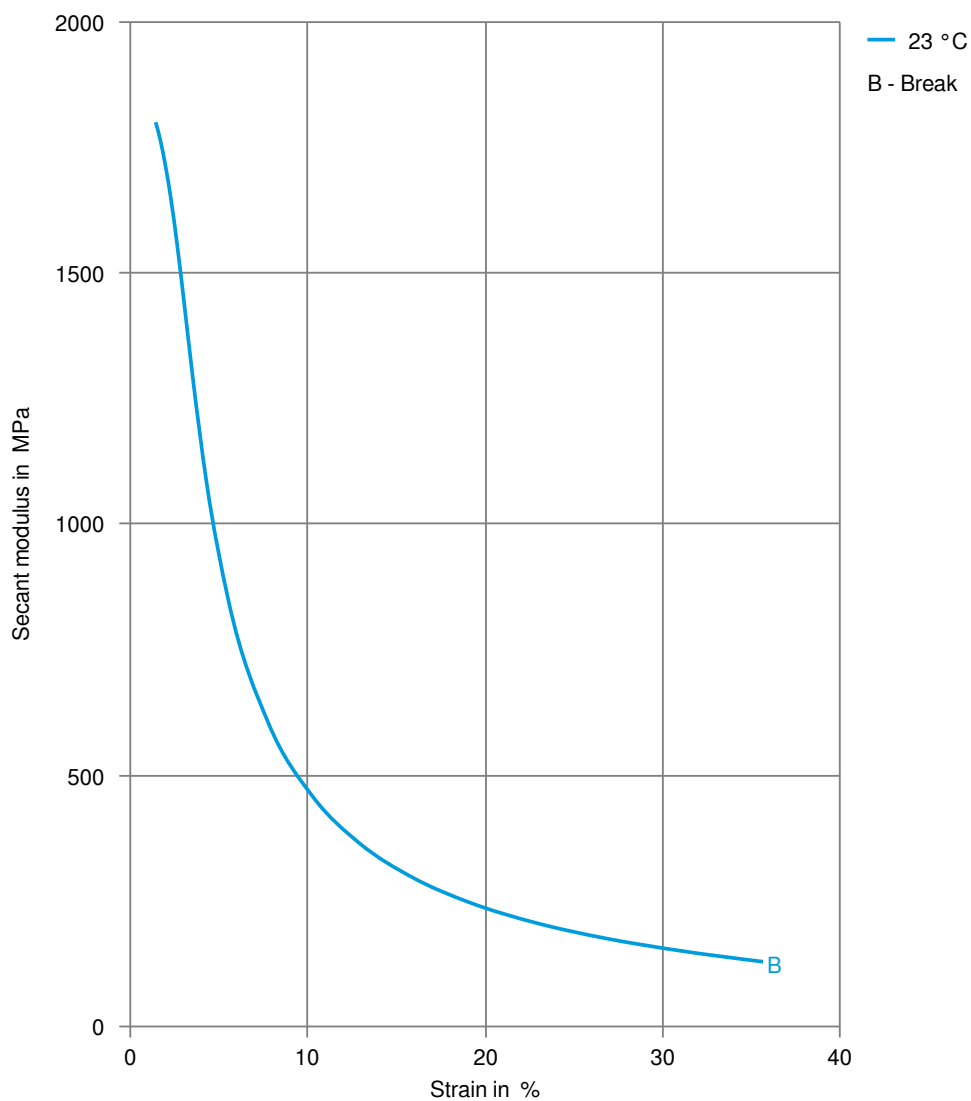




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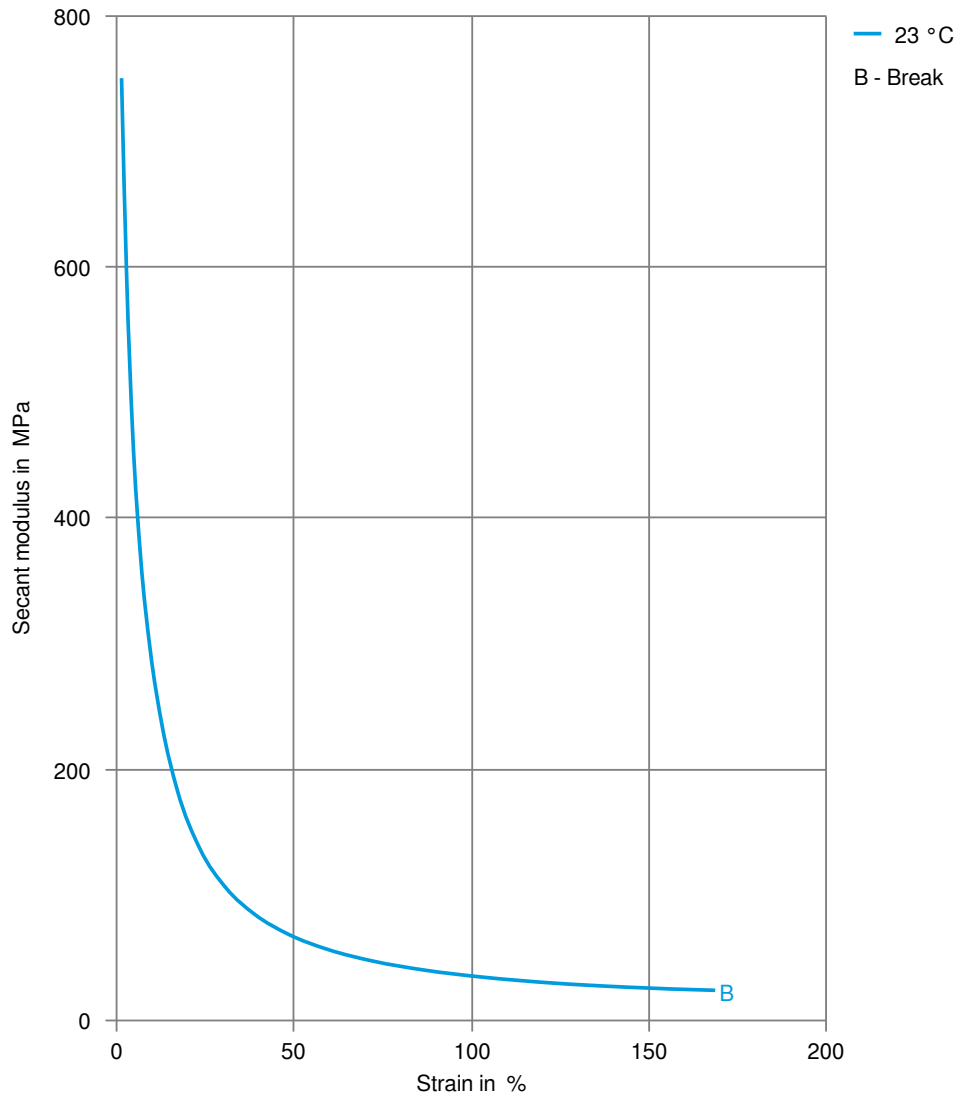
Secant modulus-strain, 50mm/min (dry)



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## CELANYL®

Secant modulus-strain, 50mm/min (cond.)



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