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Zytel® HTNFR520NH BK337

HIGH PERFORMANCE POLYAMIDE RESIN

Zytel® HTNFR520NH BK337 is an unreinforced, flame retardant high performance polyamide resin. It is also a PPA resin and it uses a non-halogenated flame retardant.

Product information

Resin Identification	PA6T/66-FR(40)	ISO 1043
Part Marking Code	>PA6T/66-FR(40)<	ISO 11469
Part Marking Code	>PPA FR<	SAE J1344

Rheological properties

	dry/cond.		
Moulding shrinkage, parallel	1.2 / -	%	ISO 294-4, 2577
Moulding shrinkage, normal	1.4 / -	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	3700 / 3600	MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	* / 47	MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	* / 3.5	%	ISO 527-1/-2
Tensile stress at break, 5mm/min	65 / *	MPa	ISO 527-1/-2
Nominal strain at break	* / 13	%	ISO 527-1/-2
Tensile strain at break, 5mm/min	5.5 / *	%	ISO 527-1/-2
Charpy impact strength, 23°C	45 / 60	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	2 / 2.5	kJ/m²	ISO 179/1eA
Poisson's ratio	0.36 / 0.36		

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	310 / *	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	95 / 60	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	104 / *	°C	ISO 75-1/-2

Flammability

	dry/cond.		
Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.4 / *	mm	IEC 60695-11-10

Electrical properties

	dry/cond.		
Comparative tracking index	600 / -		IEC 60112

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.6 / *	%	Sim. to ISO 62
Water absorption, 2mm	6.5 / *	%	Sim. to ISO 62
Density	1220 / -	kg/m³	ISO 1183

Injection

Melt Temperature Optimum	325	°C
Min. melt temperature	320	°C
Max. melt temperature	330	°C
Mold Temperature Optimum	100	°C
Min. mould temperature	80	°C

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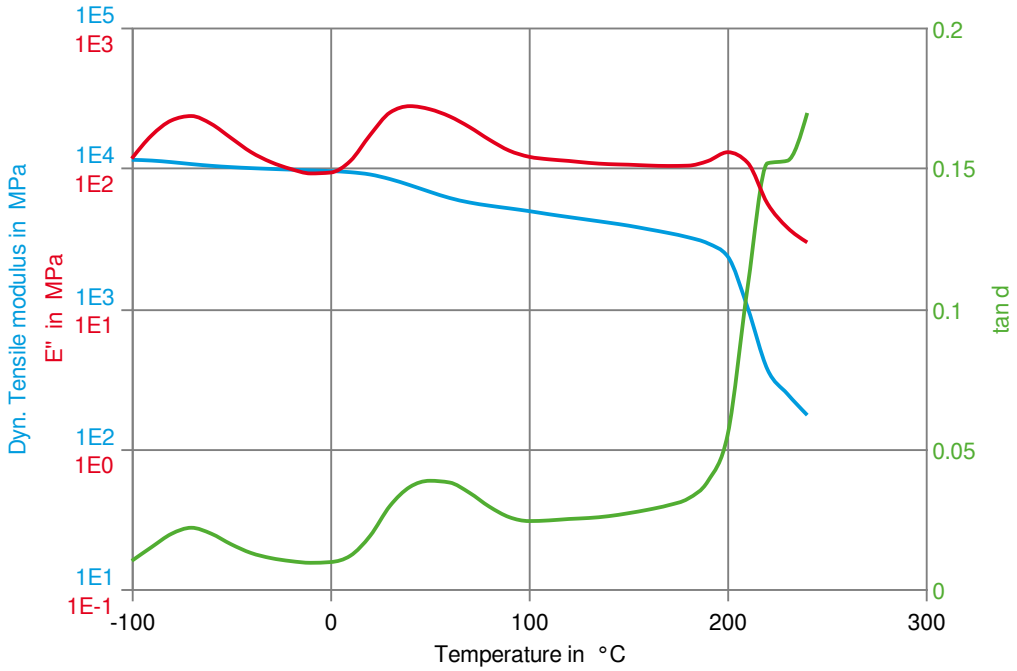
Max. mould temperature	120 °C
Ejection temperature	251 °C

Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Additives	Flame retardant, Non-halogenated/Red phosphorous free flame retardant
Special characteristics	Flame retardant, Heat stabilised or stable to heat

Dynamic Tensile modulus-temperature (dry)



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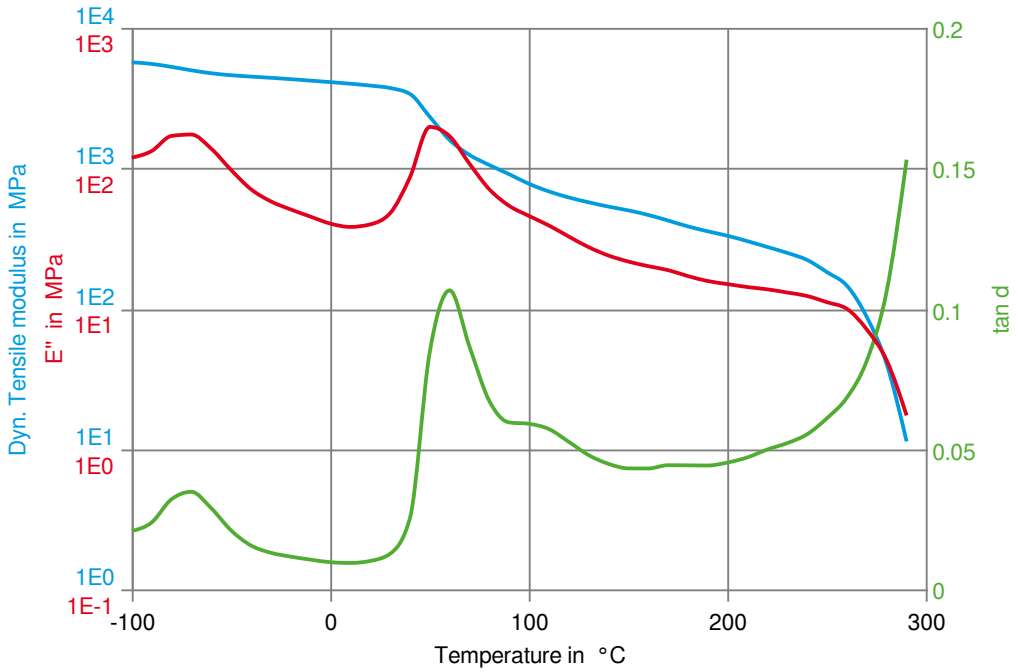
Dynamic Tensile modulus-temperature (cond.)



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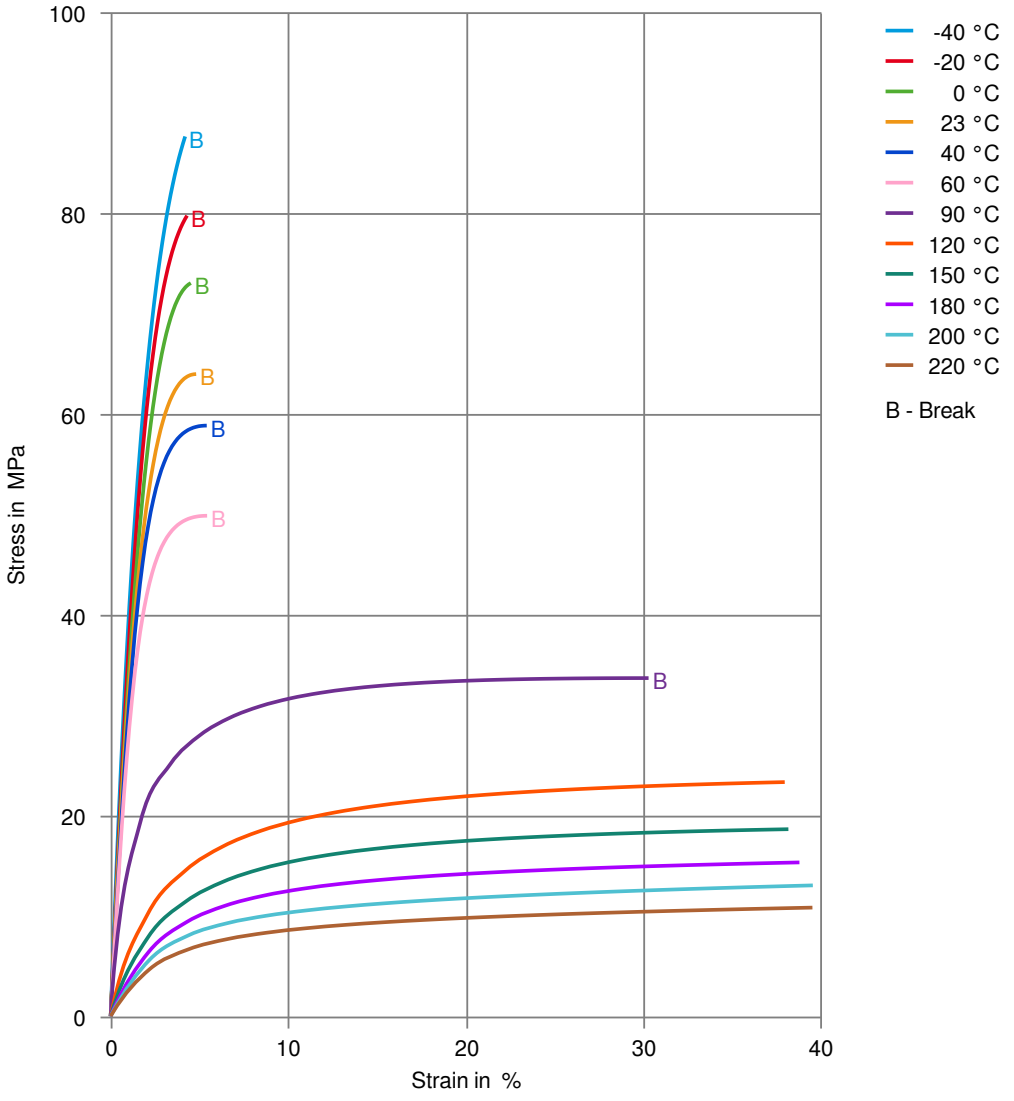
Stress-strain (dry)



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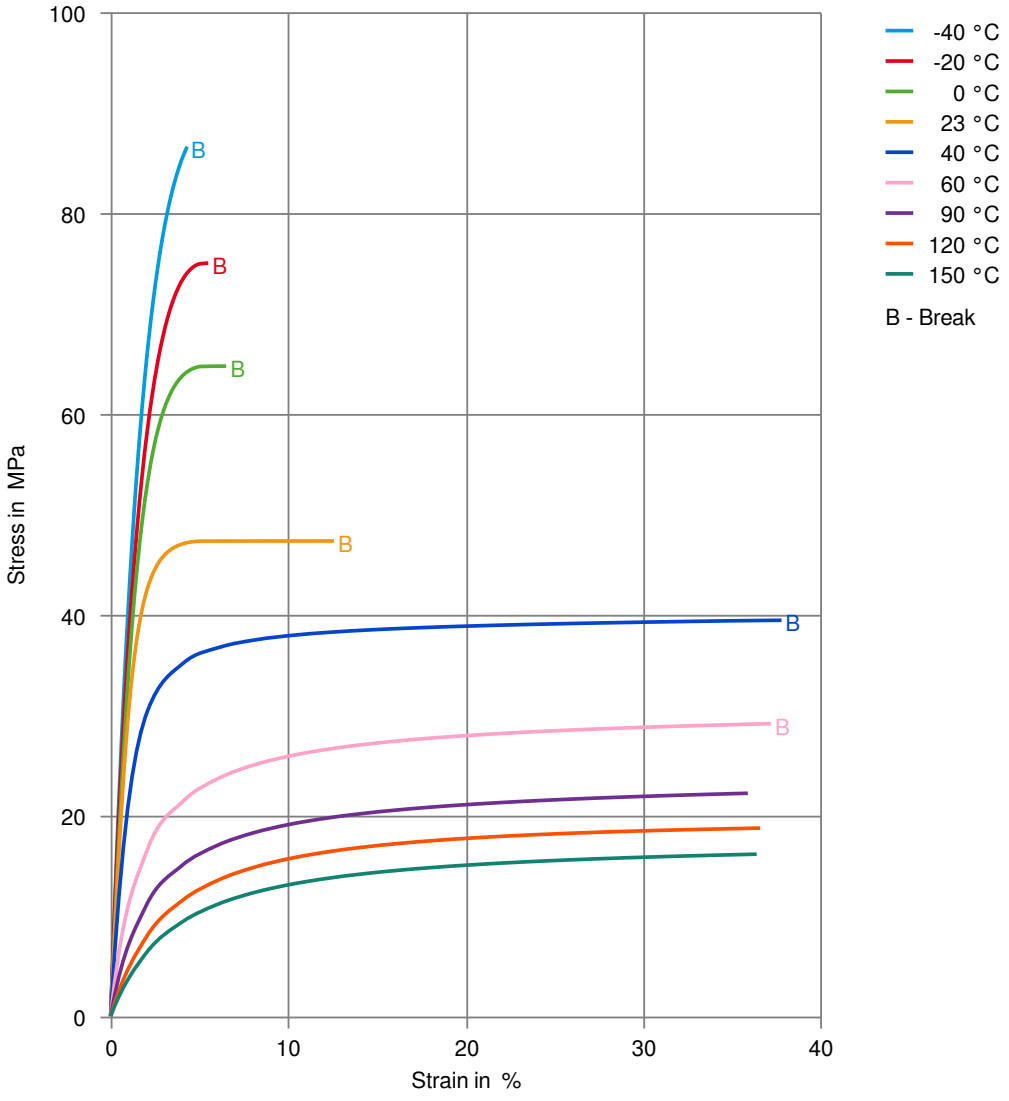
Stress-strain (cond.)



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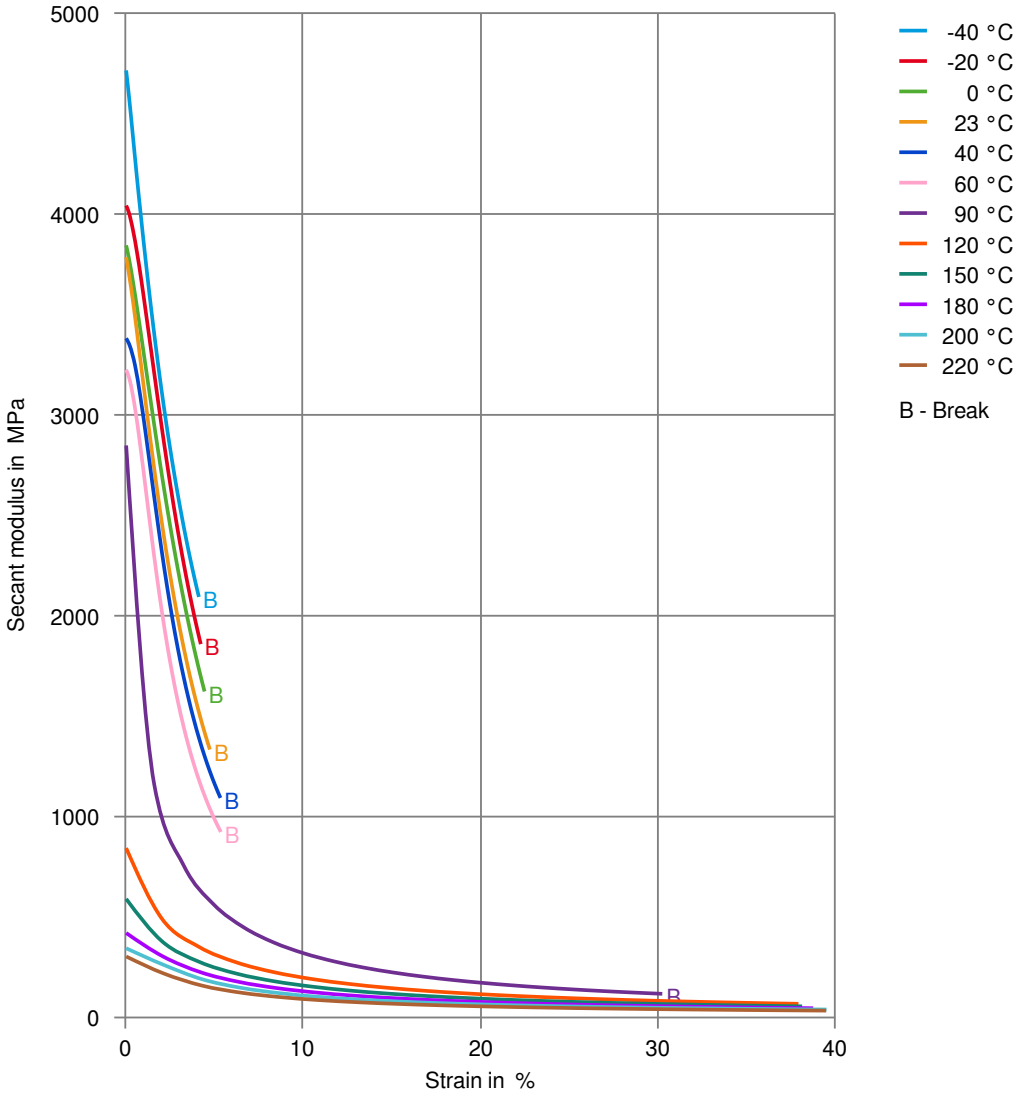
Secant modulus-strain (dry)



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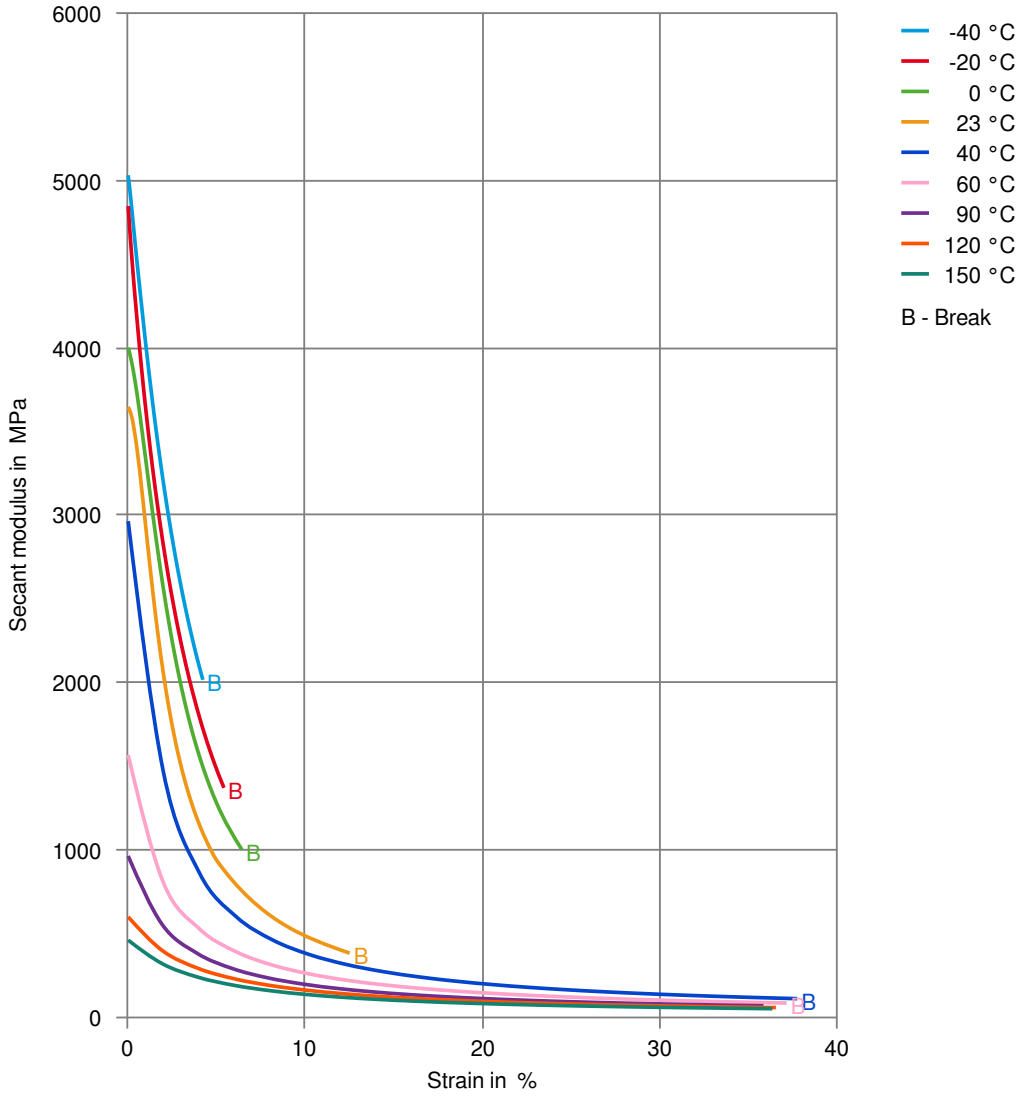
Secant modulus-strain (cond.)



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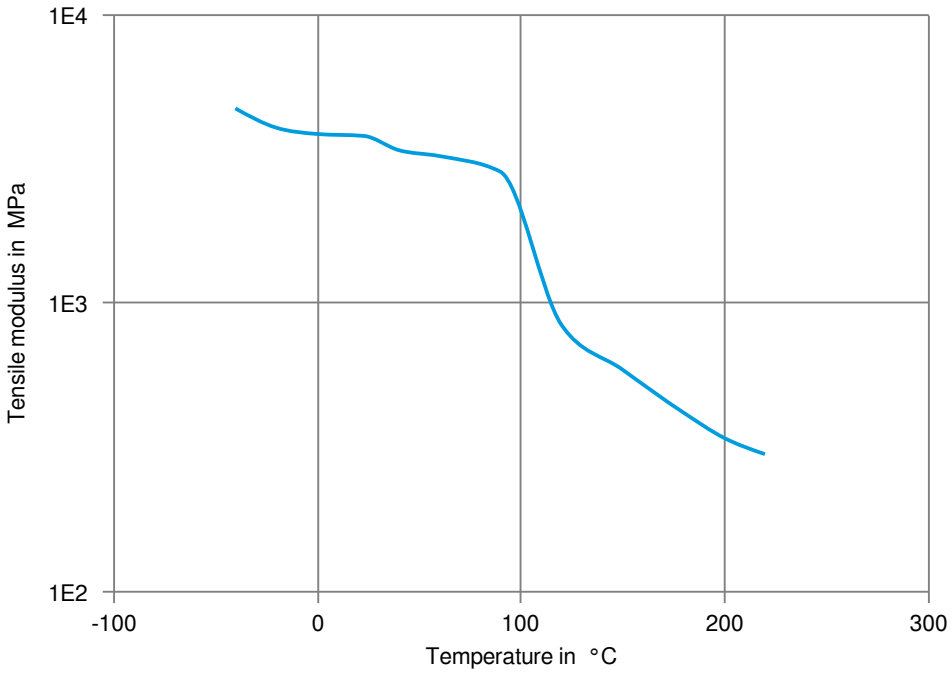
Tensile modulus-temperature (dry)



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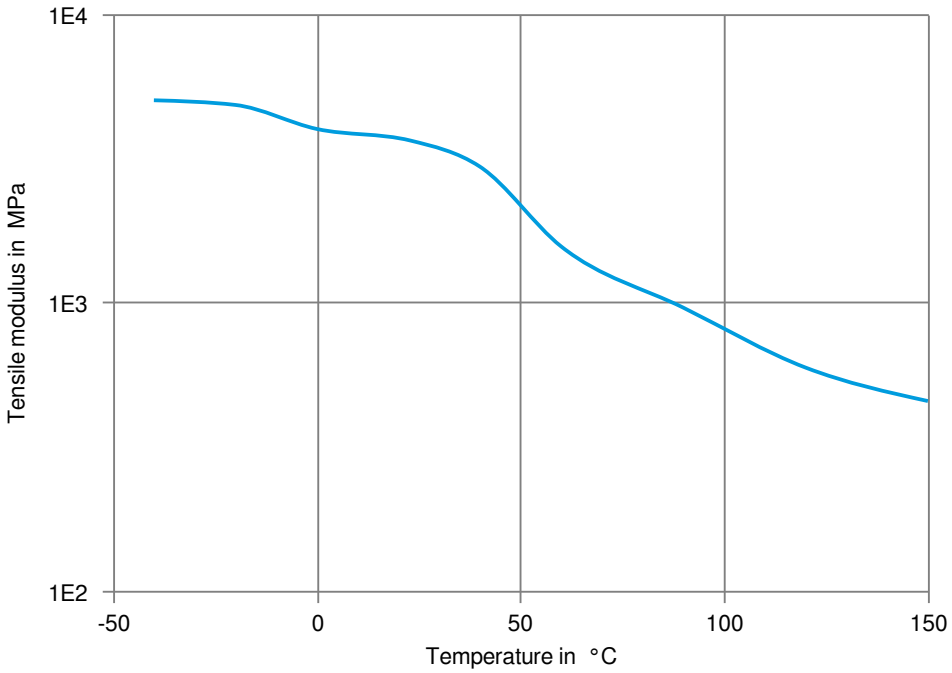
Tensile modulus-temperature (cond.)



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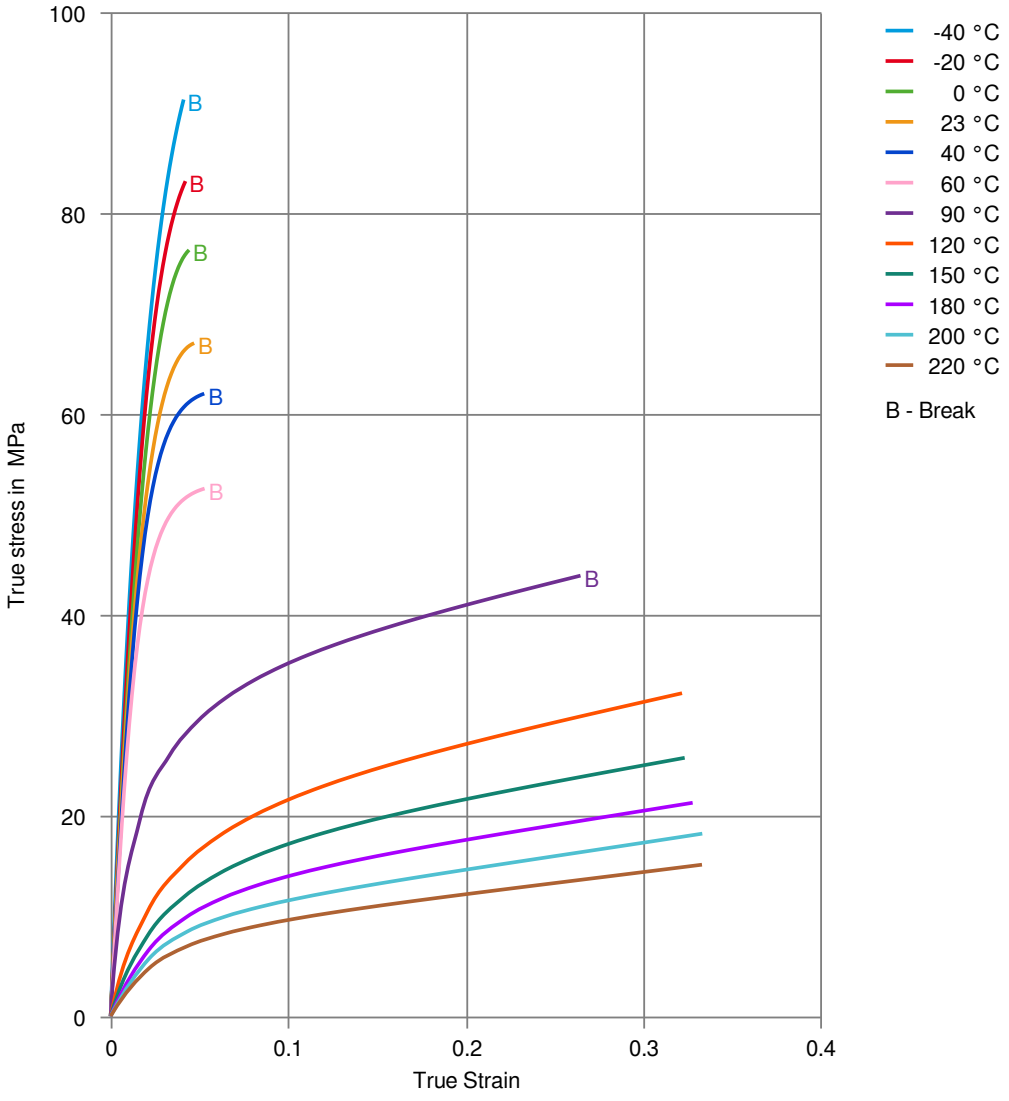
True stress-strain (dry)



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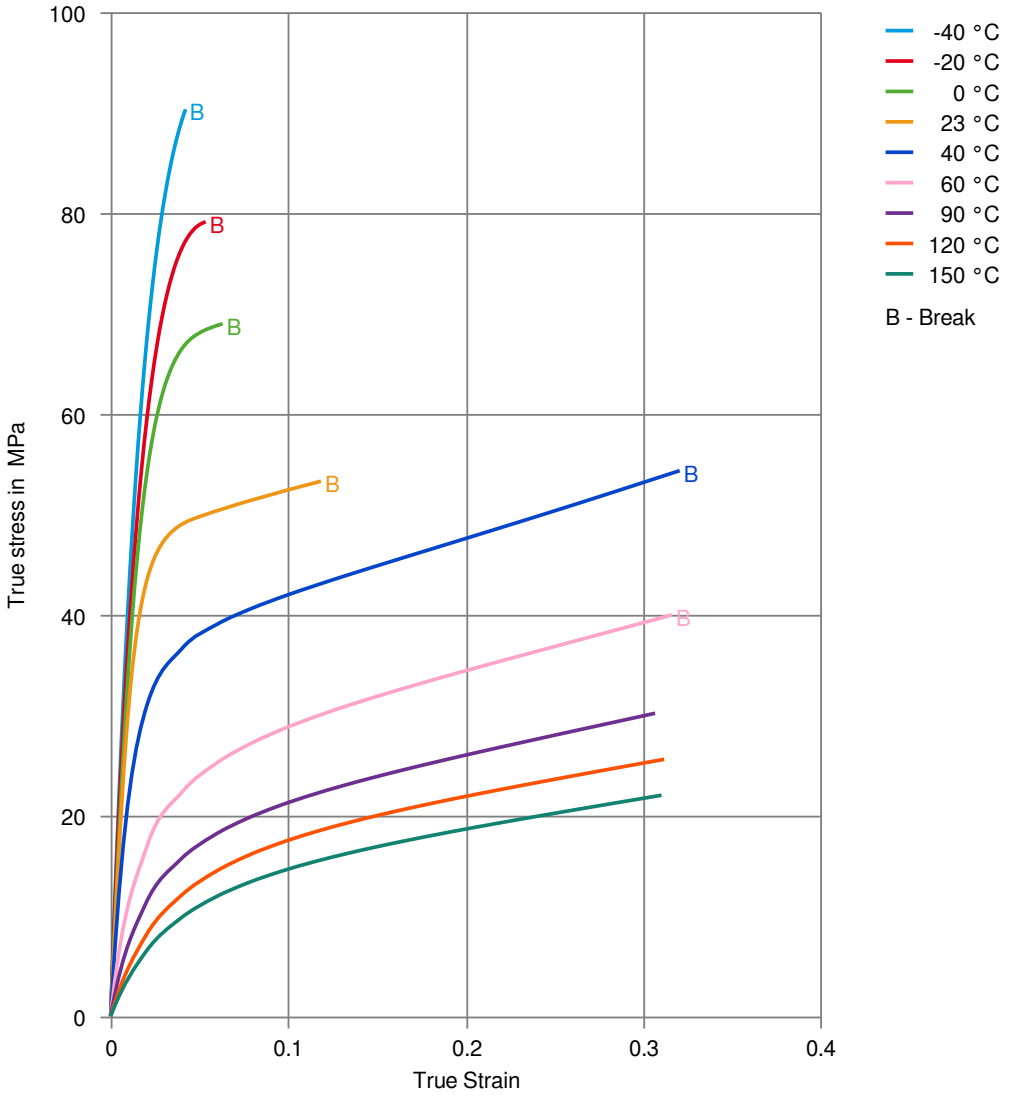
True stress-strain (cond.)



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