Celanese
The chemistry inside innovation™

ZYTEL® FR73G30V0NH1 ECO-R 311 N904LM

NYLON RESIN

Zytel® FR73G30V0NH1 ECO-R 311 N904LM incorporates 30% of post-industrial recycled content by weight in the finished product. The product is designed for applications requiring self-extinguishing properties combined with good mechanical performances.

Product information

Resin Identification	(PA6)-GF30 FR(40) REC(30)	ISO 1043
Part Marking Code	>(PA6)-GF30 FR(40) REC(30)<	ISO 11469
Continuous Service Temperature	130 °C	IEC 60216-1

Rheological properties

	dry/cond.		
Viscosity number	150 / *	cm^3/g	ISO 307, 1628
Moulding shrinkage range, parallel	0.3 - 0.6	%	ISO 294-4, 2577
Moulding shrinkage range, normal	0.6 - 0.9	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	10300 / 5800	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	125 / 75	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.5 / 6.5	%	ISO 527-1/-2
Charpy impact strength, 23°C	50 / >50	kJ/m^2	ISO 179/1eU
Charpy impact strength, -30°C	45 / 40	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, 23°C	8 / 10	kJ/m^2	ISO 179/1eA
Charpy notched impact strength, -30°C	6.5 / 6	kJ/m^2	ISO 179/1eA
Poisson's ratio	0.34 / 0.35[C]		

[C]: Calculated

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	220 / *	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	190 / *	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	210 / *	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 10N	213	°C	ISO 306
Ball pressure test	175 / -	°C	IEC 60695-10-2

Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	mm	IEC 60695-11-10
Glow Wire Flammability Index, 0.75mm	850 / -	°C	IEC 60695-2-12
Glow Wire Ignition Temperature, 0.75mm	725 / -	°C	IEC 60695-2-13

Electrical properties

	dry/cond.		
Volume resistivity	>1E13 / -	Ohm.m	IEC 62631-3-1
Surface resistivity	* / 1E13	Ohm	IEC 62631-3-2
Comparative tracking index, 100 drops	600		IEC 60112

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Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.2 / *	%	Sim. to ISO 62
Water absorption, 2mm	4.3 / *	%	Sim. to ISO 62
Density	1430 / -	kg/m³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	80	°C
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.1	%
Melt Temperature Optimum	250	°C
Min. melt temperature	240	°C
Max. melt temperature	260	°C
Screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	80	°C
Min. mould temperature	60	°C
Max. mould temperature	90	°C

Characteristics

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

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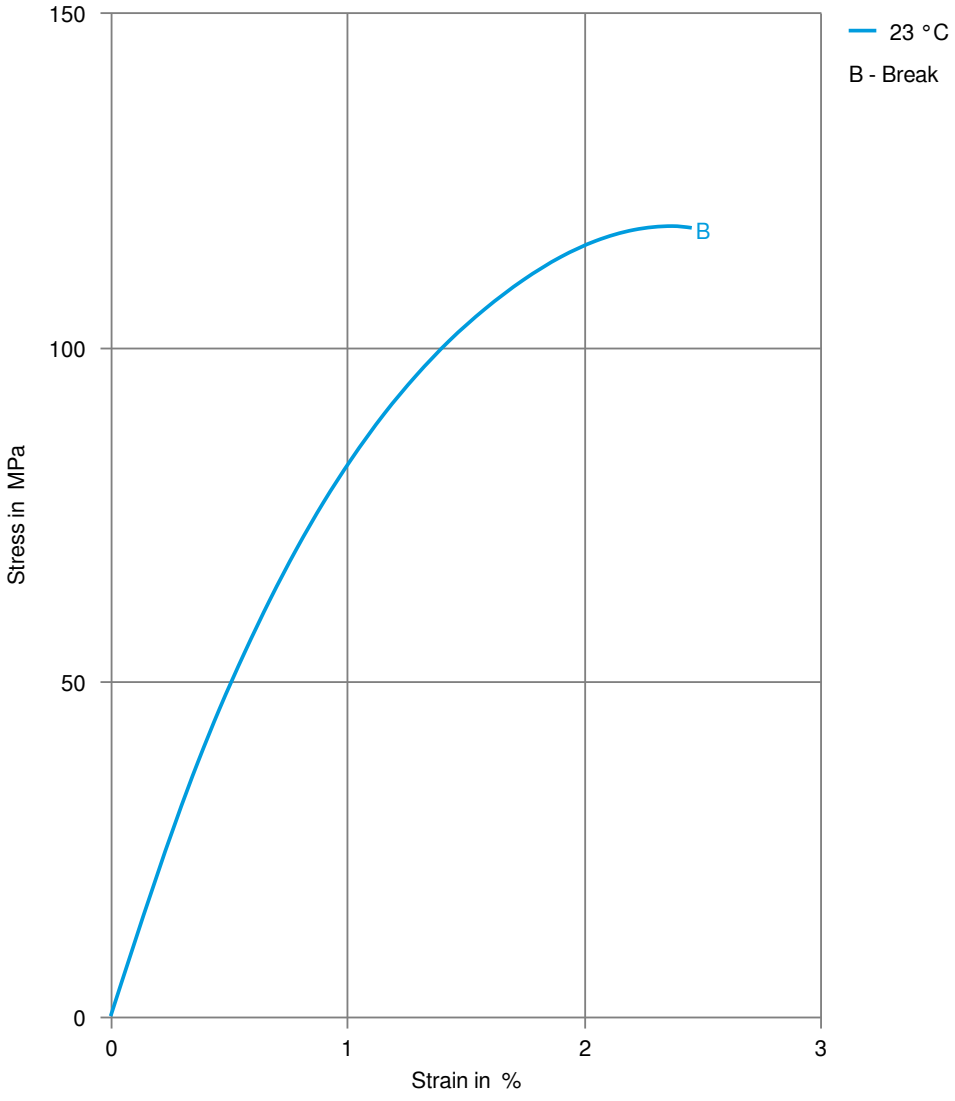
Stress-strain (dry)



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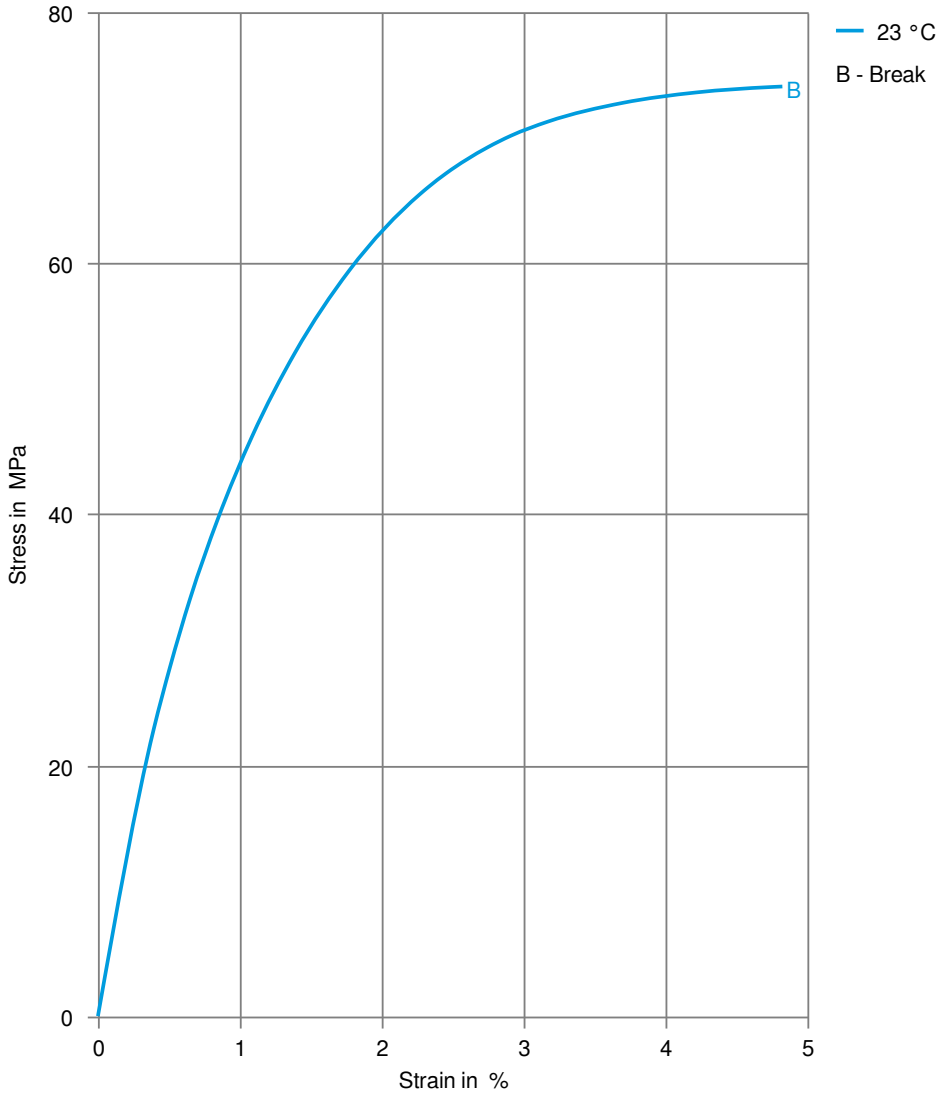
Stress-strain (cond.)



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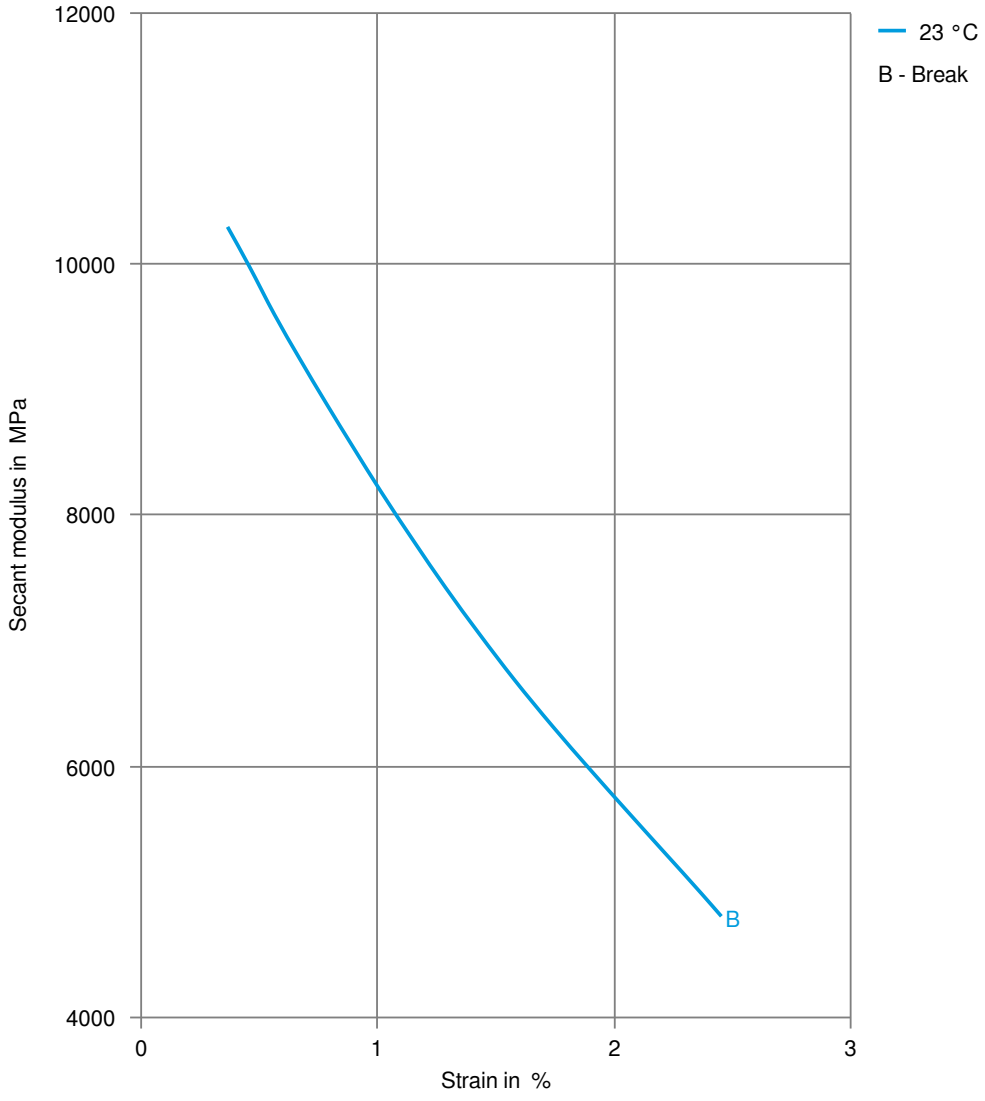
Secant modulus-strain (dry)



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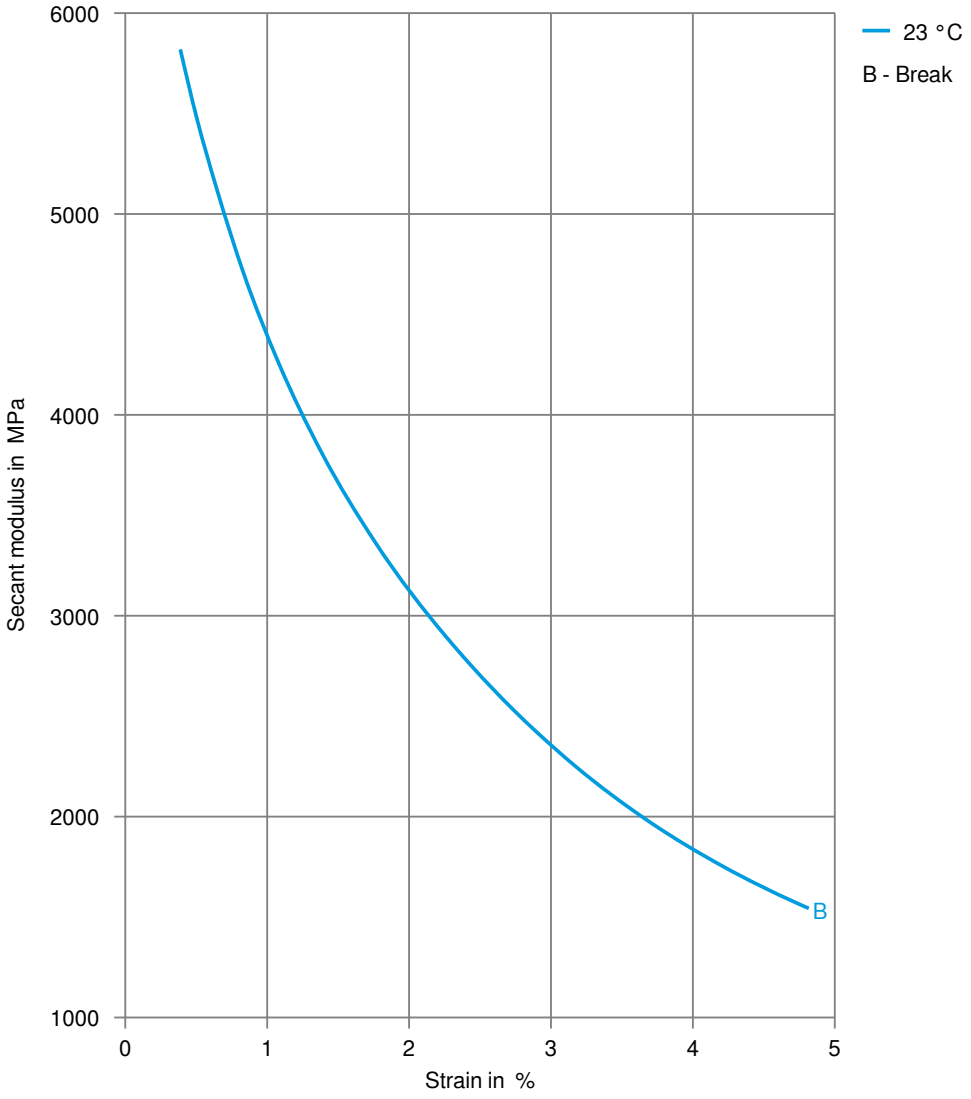
Secant modulus-strain (cond.)



Revised: 2024-12-03 Source: Celanese Materials Database