Celanese
The chemistry inside innovation™

CELCON® F40-34

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- A standard unfilled and extra easy-flowing (ultra low-viscosity) grade for general injection molding
- Suitable for multi-cavity molds and thin-walled precision parts

Product information

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

Rheological properties

Melt mass-flow rate	75	g/10min	ISO 1133
Melt mass-flow rate, Temperature	190	°C	
Melt mass-flow rate, Load	2.16	kg	
Moulding shrinkage, parallel	2.0	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	2900	MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	65	MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	7	%	ISO 527-1/-2
Nominal strain at break	13	%	ISO 527-1/-2
Flexural modulus	2700	MPa	ISO 178
Flexural strength	93	MPa	ISO 178
Charpy notched impact strength, 23°C	3.5	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	2.2	kJ/m²	ISO 179/1eA
Poisson's ratio	0.418		

Thermal properties

Melting temperature, 10°C/min	165	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	101	°C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	120	E-6/K	ISO 11359-1/-2

Electrical properties

Volume resistivity	1E12	Ohm.m	IEC 62631-3-1
Surface resistivity	1E16	Ohm	IEC 62631-3-2
Electric strength	19	kV/mm	IEC 60243-1

Physical/Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Density	1410	kg/m³	ISO 1183

Injection

Drying Recommended	no	
Drying Temperature	100	°C
Drying Time, Dehumidified Dryer	3 - 4	h
Processing Moisture Content	≤0.2	%
Melt Temperature Optimum	195	°C
Min. melt temperature	180	°C
Max. melt temperature	210	°C

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Screw tangential speed	≤0.3	m/s
Mold Temperature Optimum	70	°C
Min. mould temperature	60	°C
Max. mould temperature	80	°C
Hold pressure range	60 - 120	MPa
Back pressure	2	MPa

Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Special characteristics	High Flow

Additional information

Injection molding

Processing

mold temperature: 60ºC ~ 80ºC (140ºF ~ 160ºF)
barrel temperature: 170ºC ~ 210ºC (338ºF ~ 410ºF)
screw speed: 150mm/s ~ 200mm/s
back pressure: max. 20bar

Processing Notes

Pre-Drying

suggested pre-drying condition: 80 ºC ~ 90 ºC (176ºF ~ 194ºF) 3 h ~ 4 h
suggested max. moisture:0.1%

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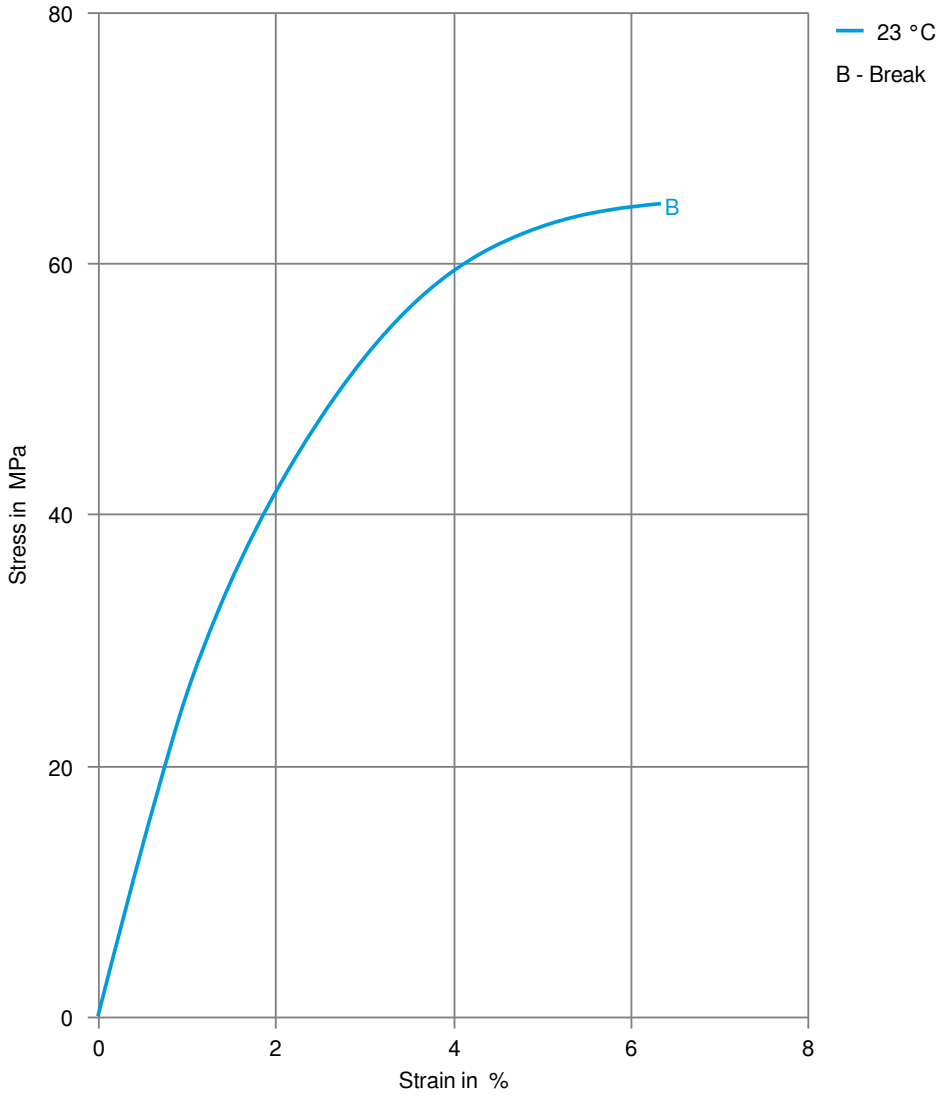
Stress-strain



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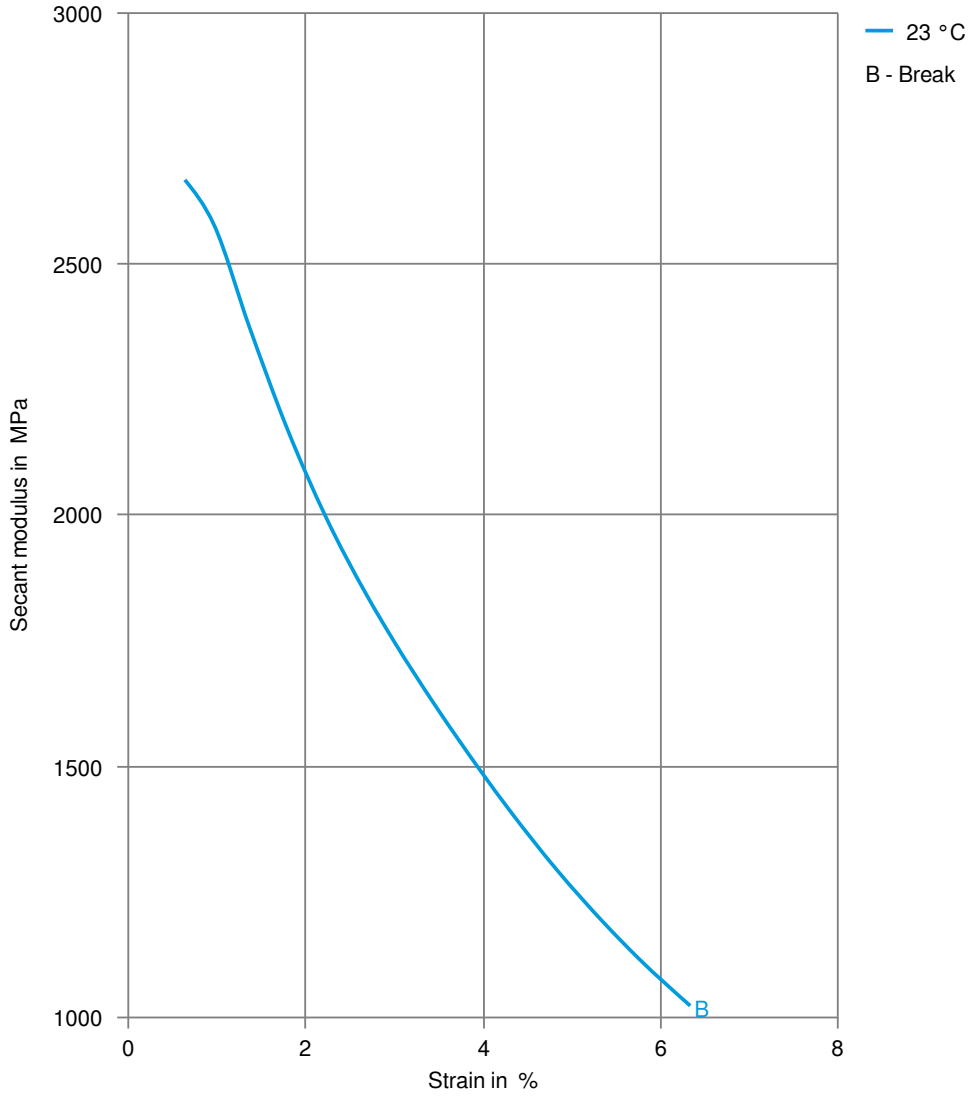
Secant modulus-strain



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