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The chemistry inside innovation™

CELCON® F25-03HT

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CELCON® F25-03HT is a friction & wear-resistance (medium-viscosity) grade for general injection molding. Suitable for applications requiring reduced impact noise and good friction and wear resistance.

Product information

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

Rheological properties

Melt mass-flow rate	13	g/10min	ISO 1133
Melt mass-flow rate, Temperature	374	°F	
Melt mass-flow rate, Load	4.76	lb	
Molding shrinkage, parallel	2.0	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	392000	psi	ISO 527-1/-2
Tensile stress at yield, 50mm/min	9300	psi	ISO 527-1/-2
Tensile strain at yield, 50mm/min	9	%	ISO 527-1/-2
Nominal strain at break	30	%	ISO 527-1/-2
Flexural modulus	377000	psi	ISO 178
Flexural strength	13100	psi	ISO 178
Charpy notched impact strength, 23°C	2.85	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -30°C	2.38	ftlb/in²	ISO 179/1eA
Poisson's ratio	0.405		

Thermal properties

Melting temperature, 10°C/min	338	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	212	°F	ISO 75-1/-2

Flammability

Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.1181	in	IEC 60695-11-10

Electrical properties

Electric strength	483	kV/in	IEC 60243-1

Physical/Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Density	0.0509	lb/in³	ISO 1183

Injection

Drying Recommended	no	
Drying Temperature	212	°F
Drying Time, Dehumidified Dryer	3 - 4	h
Processing Moisture Content	≤0.2	%
Melt Temperature Optimum	383	°F
Min. melt temperature	356	°F

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Max. melt temperature	410	°F
Max. screw tangential speed	≤0.3	m/s
Mold Temperature Optimum	158	°F
Min. mold temperature	140	°F
Max. mold temperature	176	°F
Hold pressure range	8700 - 17400	psi
Hold Pressure Time (h is the max. wall thickness of the part in mm)	$2h^2$-3	s
Back pressure	290	psi

Characteristics

Processing	Injection Molding
Special characteristics	Heat stabilized or stable to heat, Low wear / Low friction

Additional information

Injection molding

Processing

mold temperature: 60°C ~ 80°C (140°F ~ 176°F)
barrel temperature: 170°C ~ 190°C (338°F ~ 374°F)
screw speed: 150mm/s ~ 200mm/s
back pressure: max. 20 bar

Processing Notes

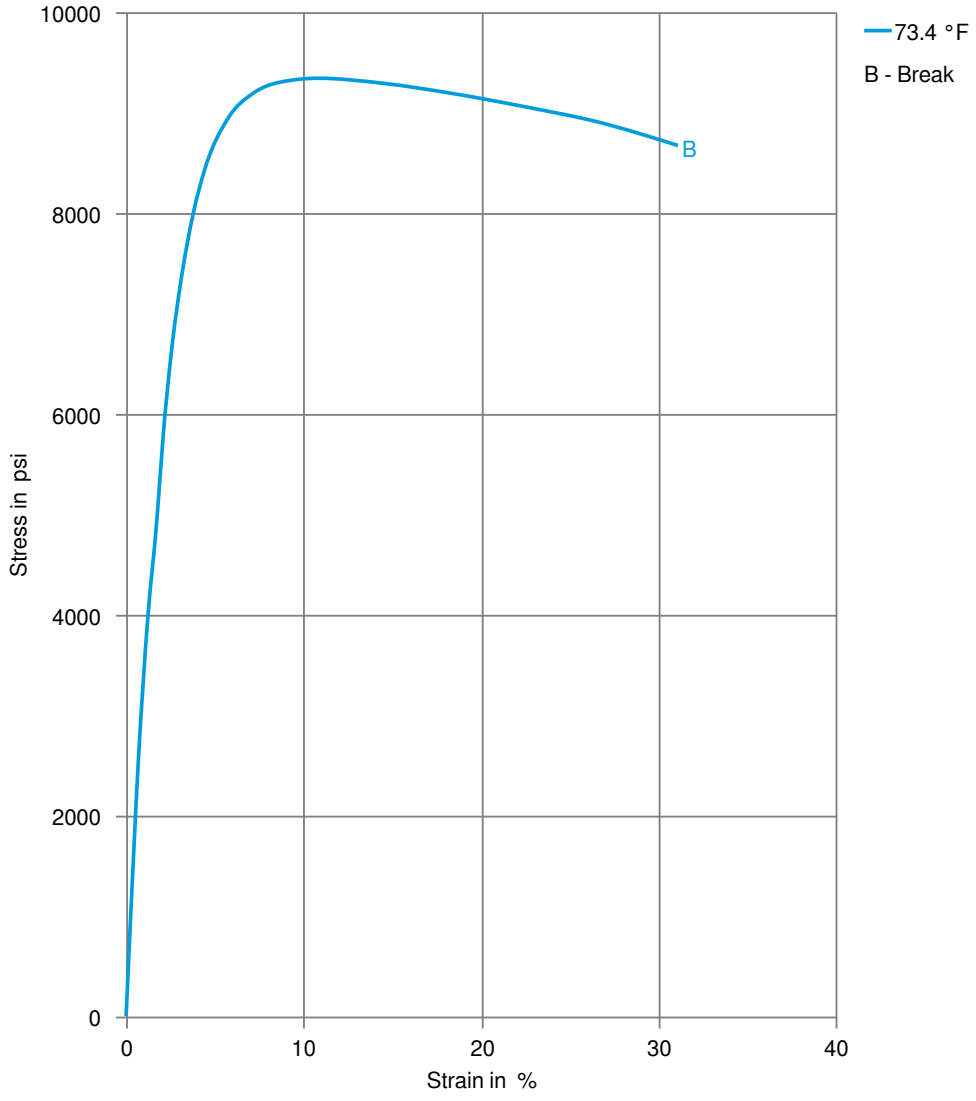
Pre-Drying

It is recommended to dry material at 80°C ~ 90°C (176°F ~ 194°F) for 3h ~ 4h if necessary.
suggest max. moisture: 0.1%

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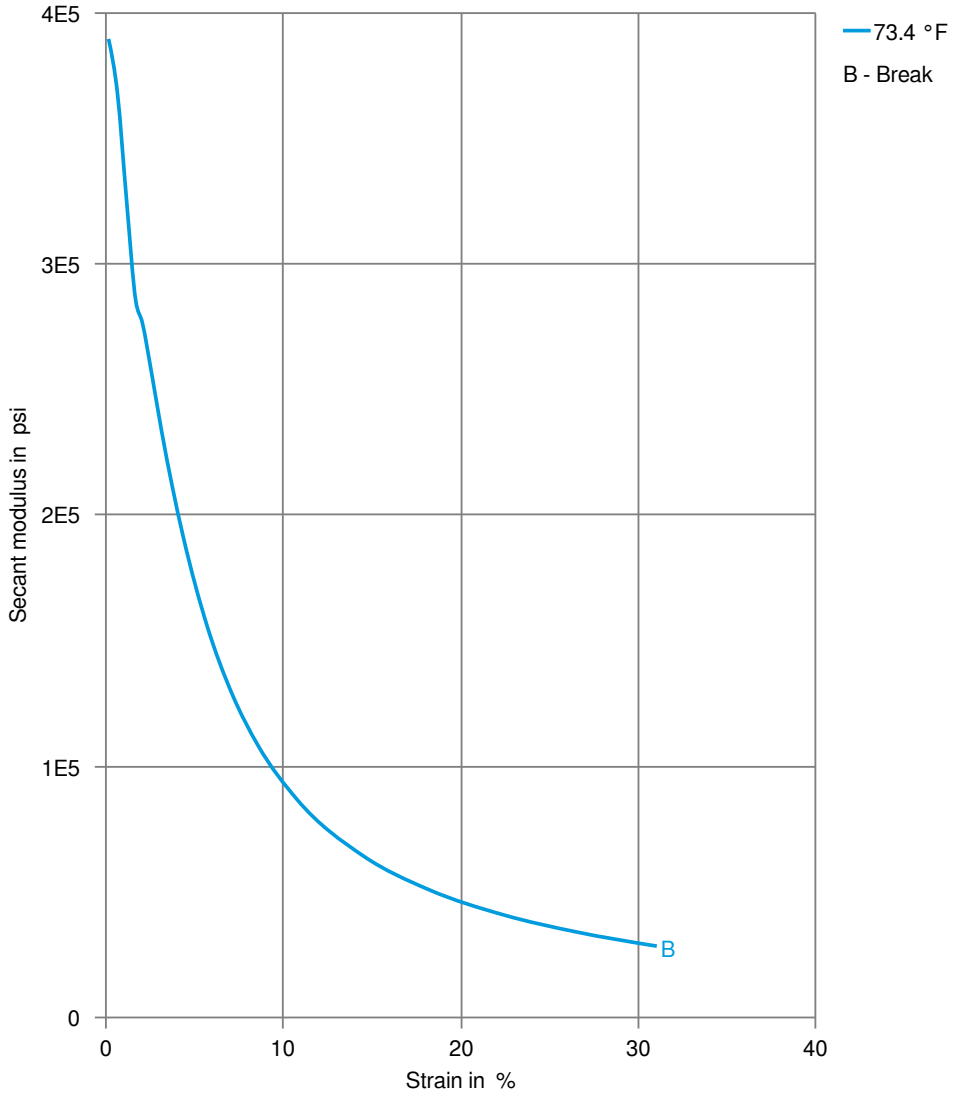
Stress-strain



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Secant modulus-strain



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