CELANYL® A3 CF20 BK 9005

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Car industry, Household appliances, Electrical devices.

Product information

Resin Identification	PA66-CF20		ISO 1043
Part Marking Code	>PA66-CF20<		ISO 11469
Continuous Service Temperature	212	°F	IEC 60216-1

Rheological properties

	dry/cond.		
Viscosity number	4010 / *	in³/lb	ISO 307, 1628
Molding shrinkage range, parallel	0.1 - 0.4	%	ISO 294-4, 2577
Molding shrinkage range, normal	0.5 - 0.9	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	2.25E6 / 1.33E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	30500 / 21800	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.7 / 6.6	%	ISO 527-1/-2
Charpy impact strength, 23 °C	28.5 / -	ftlb/in²	ISO 179/1eU
Charpy impact strength, -30 °C	18.1 / -	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23 °C	3.81 / -	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -30 °C	2.38 / -	ftlb/in²	ISO 179/1eA
Ball indentation hardness, H 961/30	31200 / -	psi	ISO 2039-1

Thermal properties

	dry/cond.		
Melting temperature, 10 °C/min	500 / *	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	464 / *	°F	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	482 / *	°F	ISO 75-1/-2

Electrical properties

	dry/cond.		
Volume resistivity	1000 / -	Ohm.m	IEC 62631-3-1
Surface resistivity	* / 10000	Ohm	IEC 62631-3-2
Electric strength	61 / -	kV/in	IEC 60243-1
Comparative tracking index	90 / -		IEC 60112

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.8 / *	%	Sim. to ISO 62
Water absorption, 2mm	6.5 / *	%	Sim. to ISO 62
Density	0.0433 / -	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	176	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.15	%
Melt Temperature Optimum	563	°F
Min. melt temperature	545	°F
Max. melt temperature	581	°F

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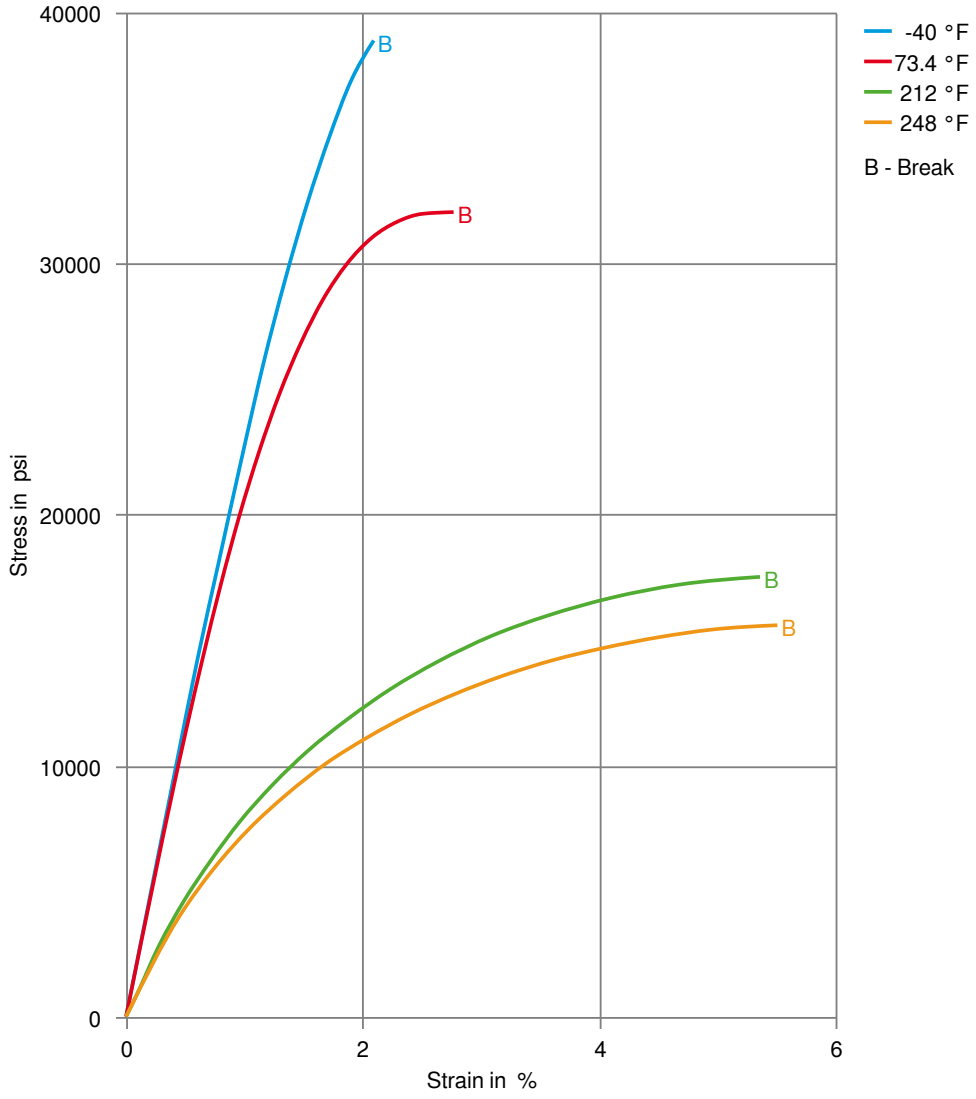
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Max. screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	212	°F
Min. mold temperature	158	°F
Max. mold temperature	248	°F

Characteristics

Processing	Injection Molding
Special characteristics	Anti-static, Static dissipative, Heat stabilized or stable to heat

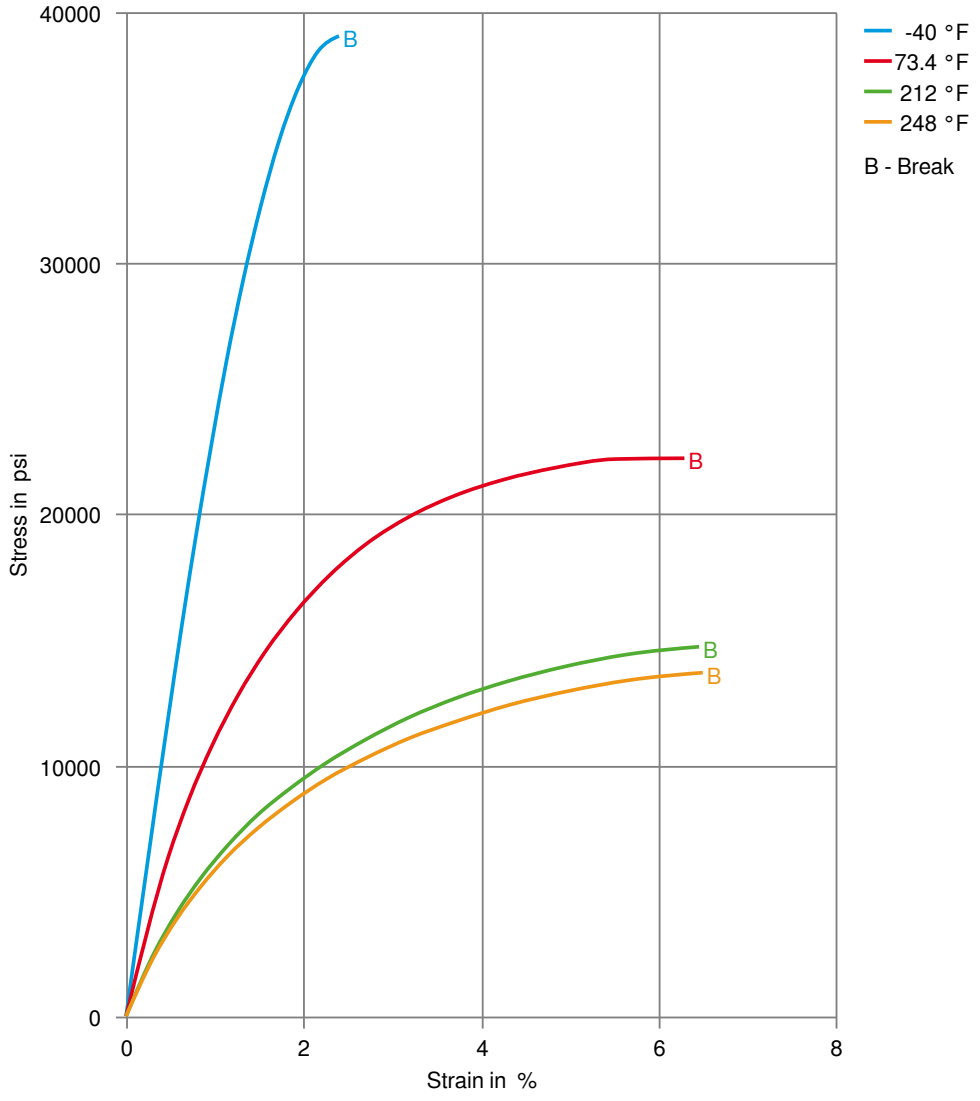
Stress-strain (dry)



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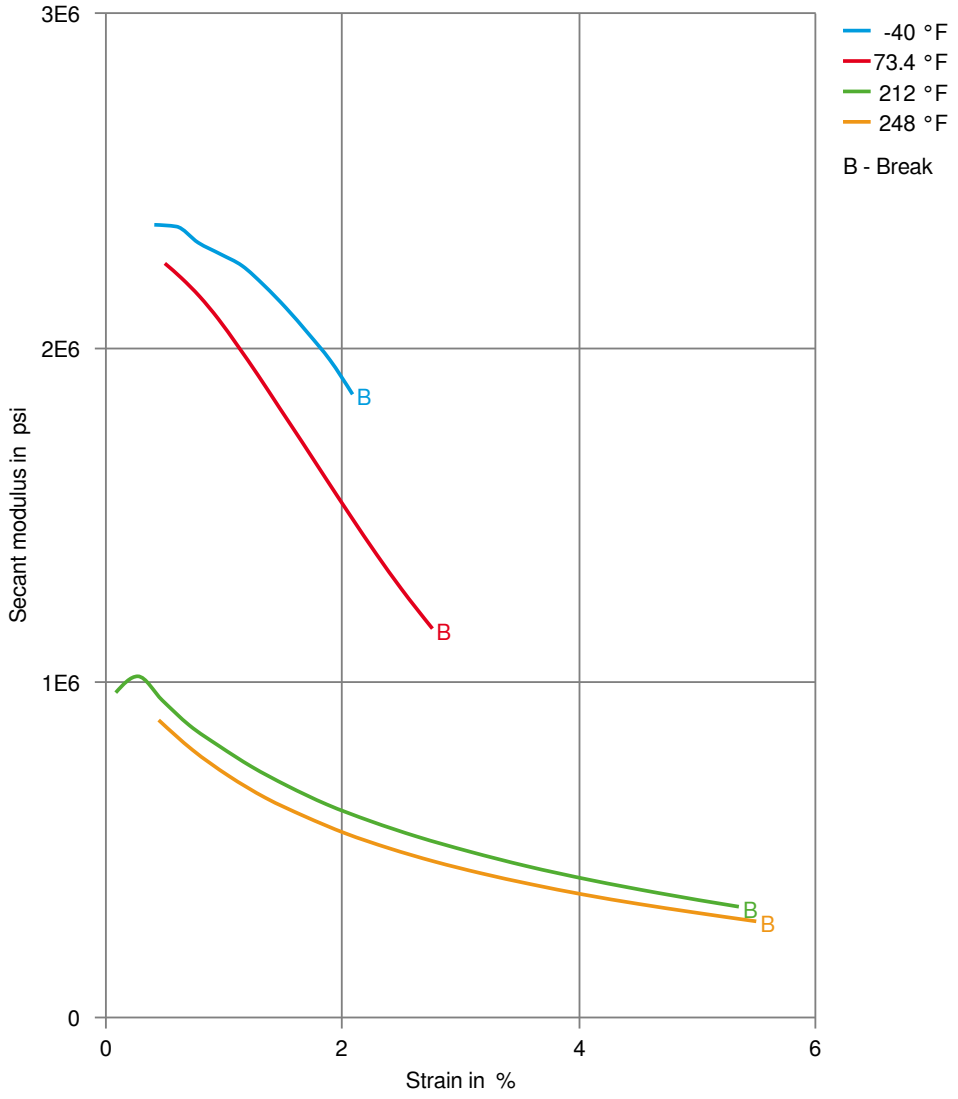
Stress-strain (cond.)



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Secant modulus-strain (dry)

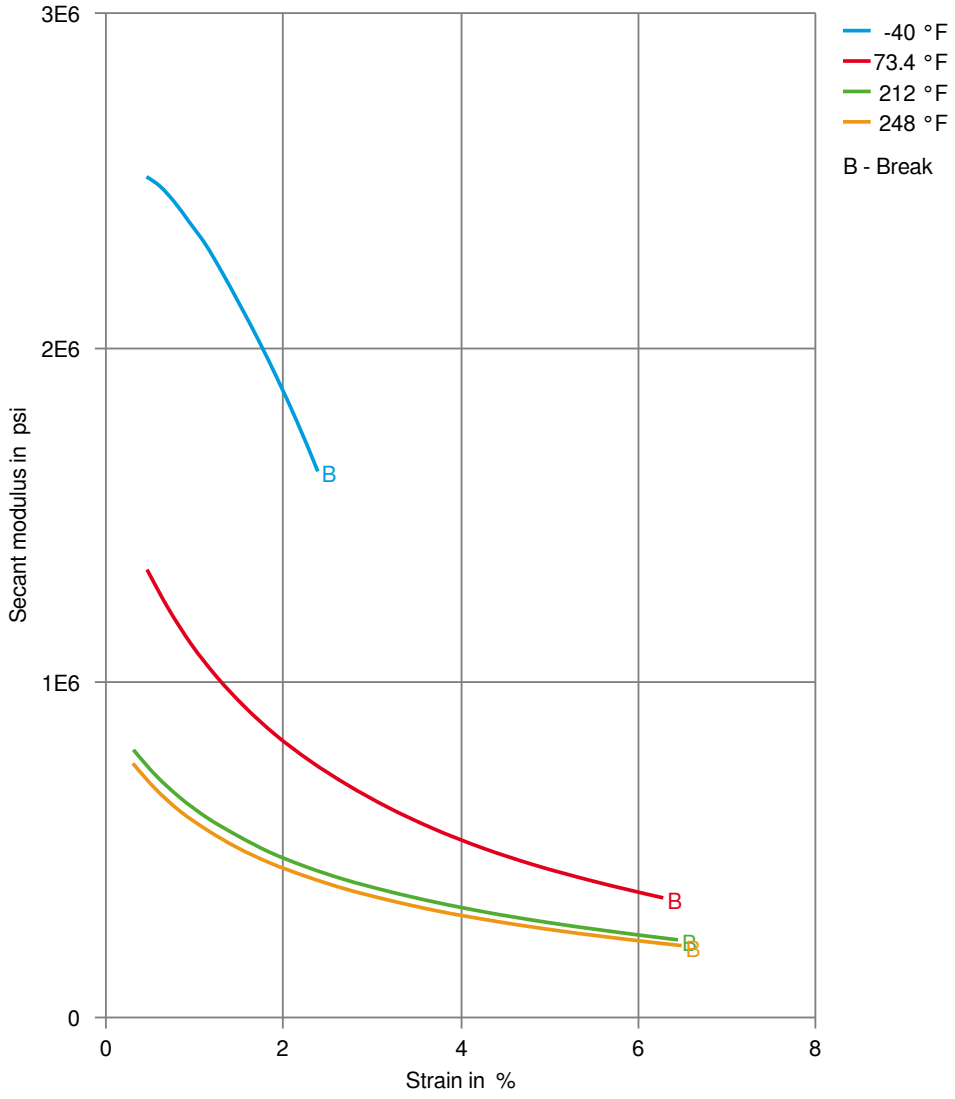


Revised: 2026-05-06 Source: Celanese Materials Database

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Secant modulus-strain (cond.)



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