COOLPOLY® E5127

COOLPOLY®

Product information

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

Typical mechanical properties

Tensile modulus	2.17E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	7110	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	0.35	%	ISO 527-1/-2
Flexural modulus	2.2E6	psi	ISO 178
Flexural strength	11700	psi	ISO 178
Charpy impact strength, 23°C	1.66	ftlb/in^2	ISO 179/1eU

Thermal properties

Thermal conductivity, flow	16	W/(m K)	ISO 22007-2
Thermal conductivity, crossflow	12.8	W/(m K)	ISO 22007-2
Thermal conductivity, through plane	2.2	W/(m K)	ISO 22007-2

Physical/Other properties

Density	0.0581	lb/in^3	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	266	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.02	%
Melt Temperature Optimum	626	°F
Min. melt temperature	590	°F
Max. melt temperature	644	°F
Max. screw tangential speed	0.2 - 0.3	m/s
Mold Temperature Optimum	320	°F
Min. mold temperature	284	°F
Max. mold temperature	347	°F

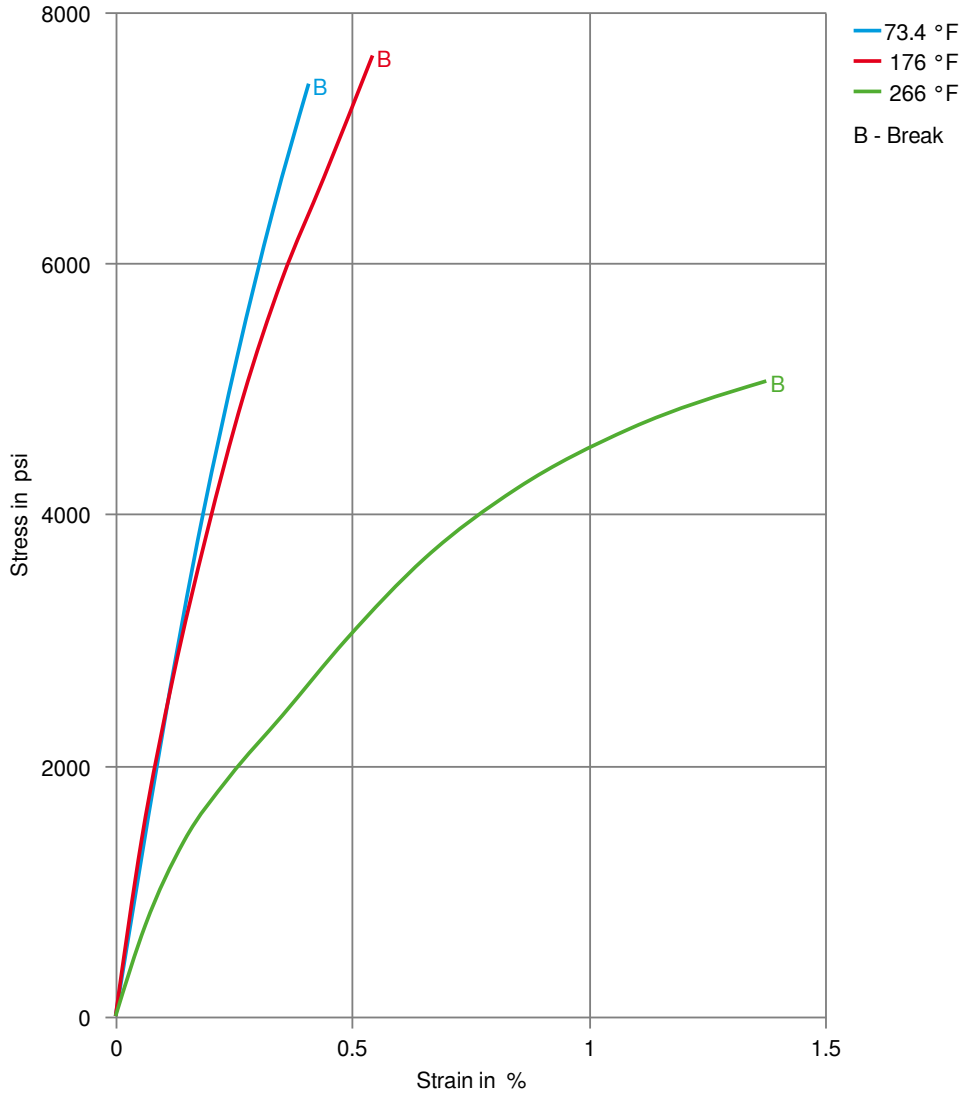
Characteristics

Processing	Injection Molding
Special characteristics	Increased electrical conductivity, Anti-static, Static dissipative, Flame retardant, Light weight

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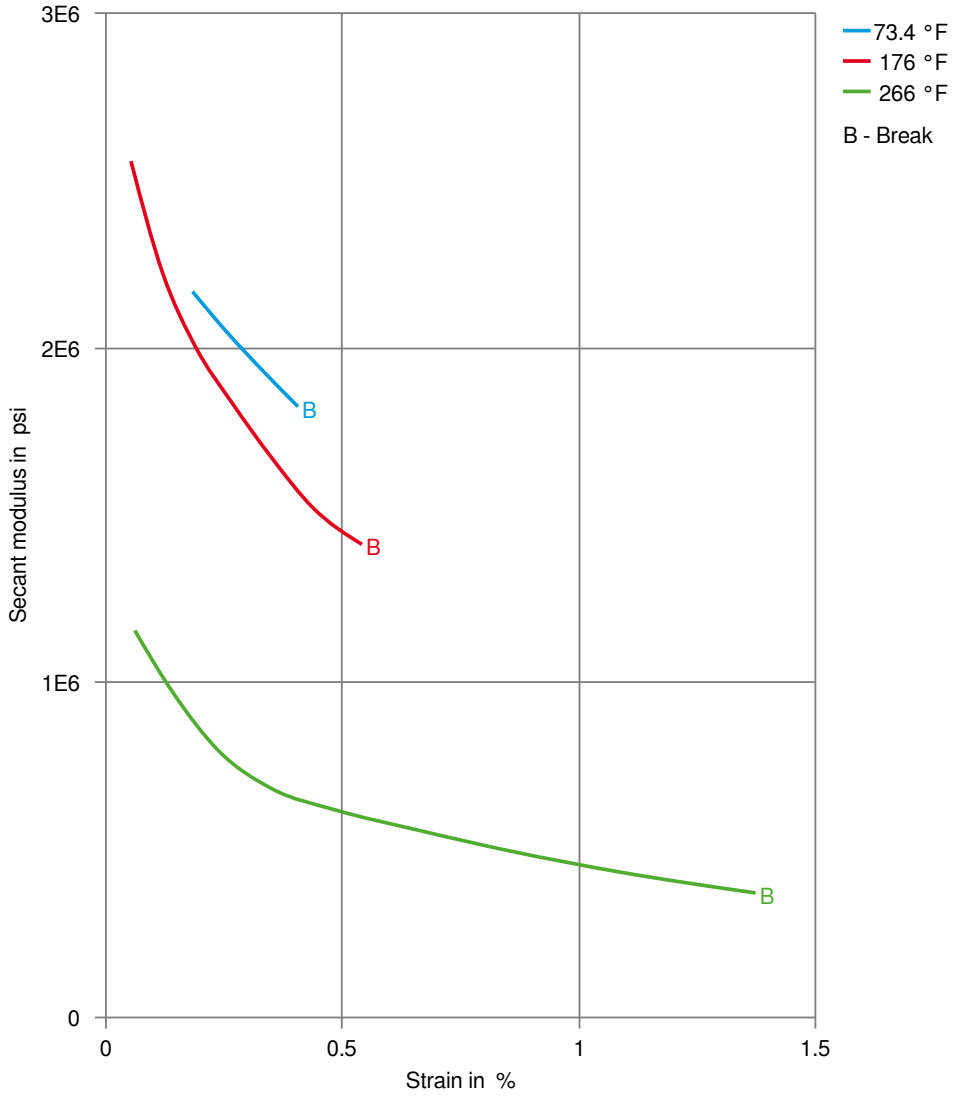
Stress-strain



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Secant modulus-strain



Revised: 2025-12-22 Source: Celanese Materials Database

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