CELANYL® A3 HH GF35 BK 9005/M

CELANYL®

Designed for Automotive Industry and for any application that require mechanical performance combined with long term heat ageing resistance.

Product information

Resin Identification	PA66-GF35		ISO 1043
Part Marking Code	>PA66-GF35<		ISO 11469
Continuous Service Temperature	266	°F	IEC 60216-1

Rheological properties

Molding shrinkage range, parallel	0.3 - 0.6	%	ISO 294-4, 2577
Molding shrinkage range, normal	0.6 - 0.9	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	1.6E6 / 1.12E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	26100 / 17400	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.5 / 4.6	%	ISO 527-1/-2
Flexural modulus	1.45E6 / -	psi	ISO 178
Flexural strength	41300 / -	psi	ISO 178
Charpy impact strength, 23°C	38.1 / 40.4	ftlb/in²	ISO 179/1eU
Charpy impact strength, -30°C	24.7 / 27.6	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	5.23 / 7.61	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -30°C	3.81 / -	ftlb/in²	ISO 179/1eA
Izod notched impact strength, 23°C	4.99 / -	ftlb/in²	ISO 180/1A
Izod impact strength, 23°C	26.2 / -	ftlb/in²	ISO 180/1U
Poisson's ratio	0.38 / -[C]		

[C]: Calculated

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	505 / *	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	482 / *	°F	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	500 / *	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.12 / *	E-4/°F	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	0.628 / *	E-4/°F	ISO 11359-1/-2

Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	HB / *	class	IEC 60695-11-10
Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.0315 / *	in	IEC 60695-11-10
UL recognition	yes / *		UL 94
FMVSS Class	B		ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	1.18	in/min	ISO 3795 (FMVSS 302)

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Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.3 / *	%	Sim. to ISO 62
Water absorption, 2mm	5.3 / *	%	Sim. to ISO 62
Density	0.0509 / -	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
Max. screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	212	°F
Min. mold temperature	158	°F
Max. mold temperature	248	°F
Ejection temperature	437	°F

Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
General Motors	GMW3038P-PA66-GF35H	Black
General Motors	GMW3038P-PA66-GF35J	Black
VW Group	VW 50127	*Best Fitting Grade To PA66-8, Not Officially Approved
VW Group	VW 50133	*Best Fitting Grade To PA66-7-A, Not Officially Approved

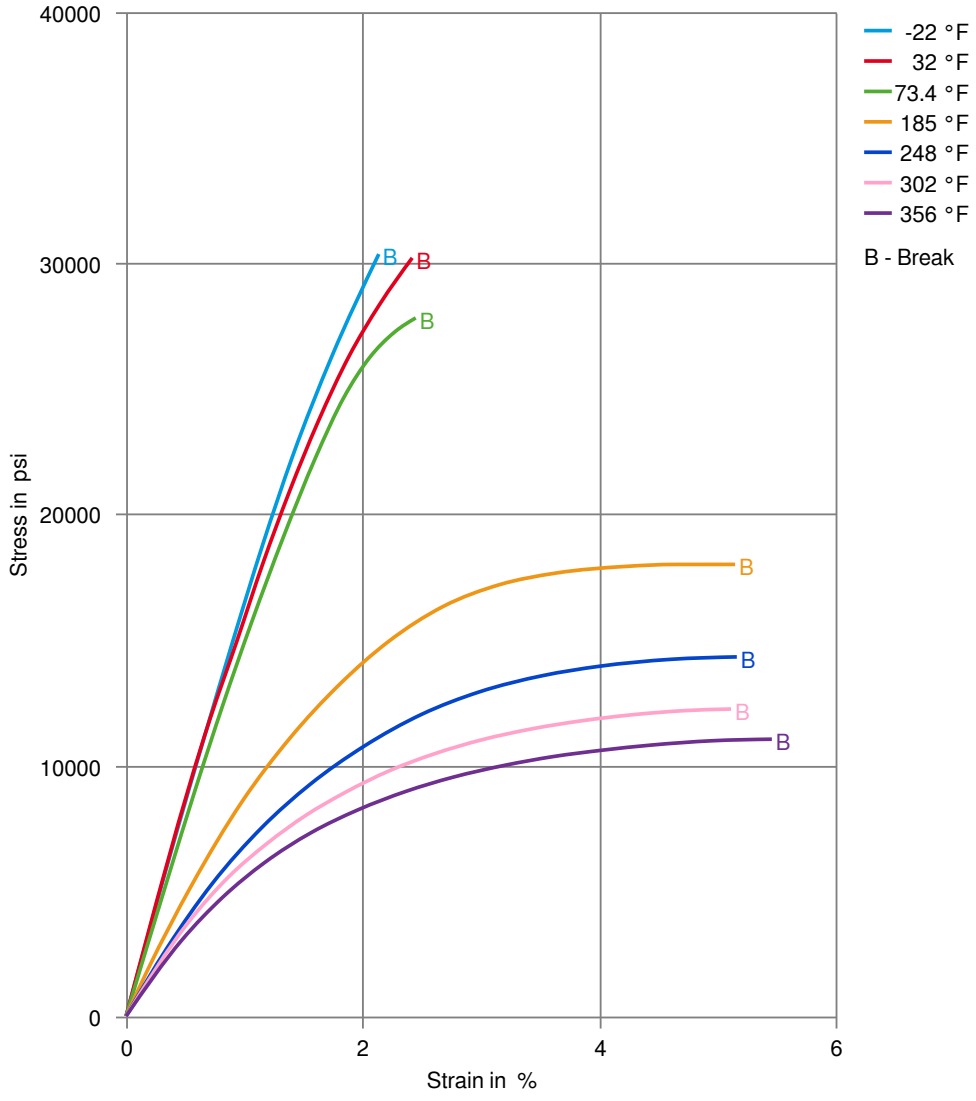
Characteristics

Processing	Injection Molding
Special characteristics	Heat stabilized or stable to heat, Hydrolysis resistant

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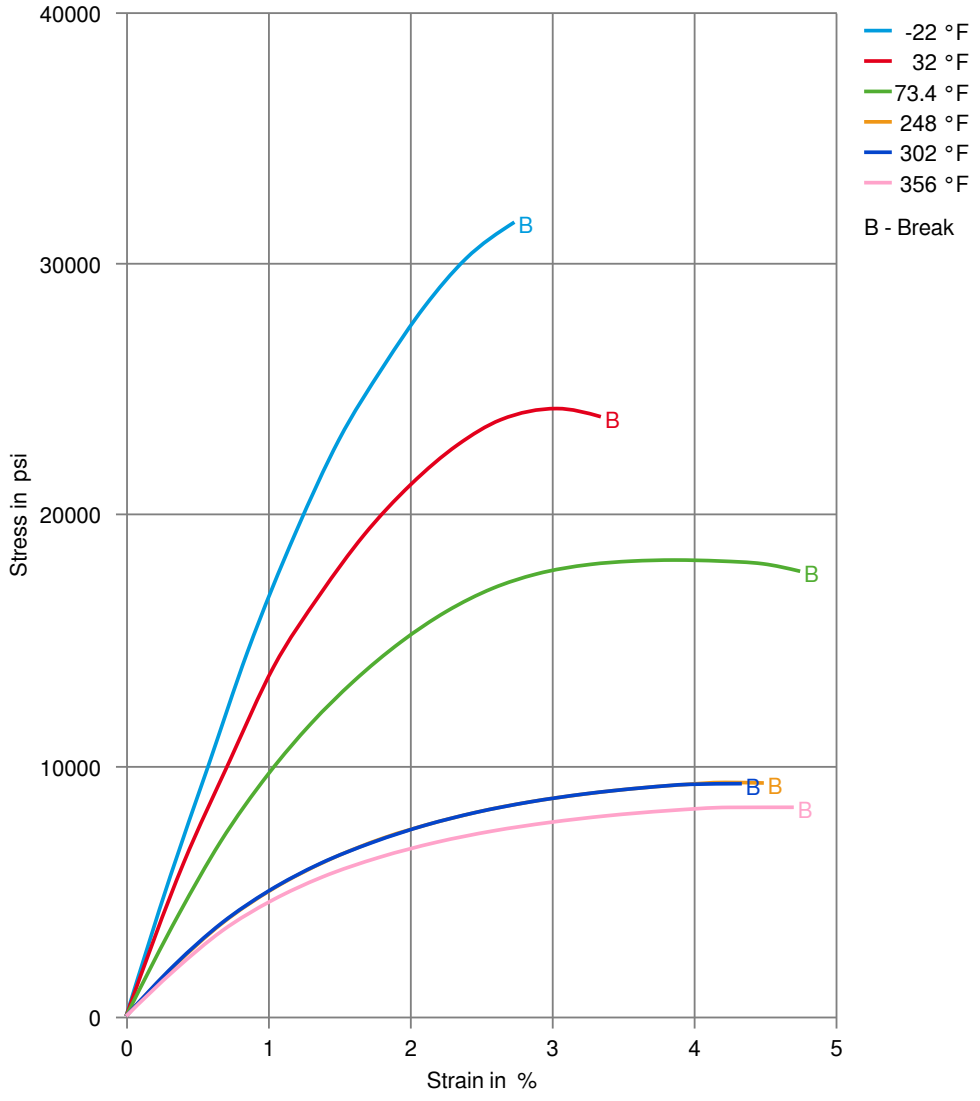
Stress-strain (dry)



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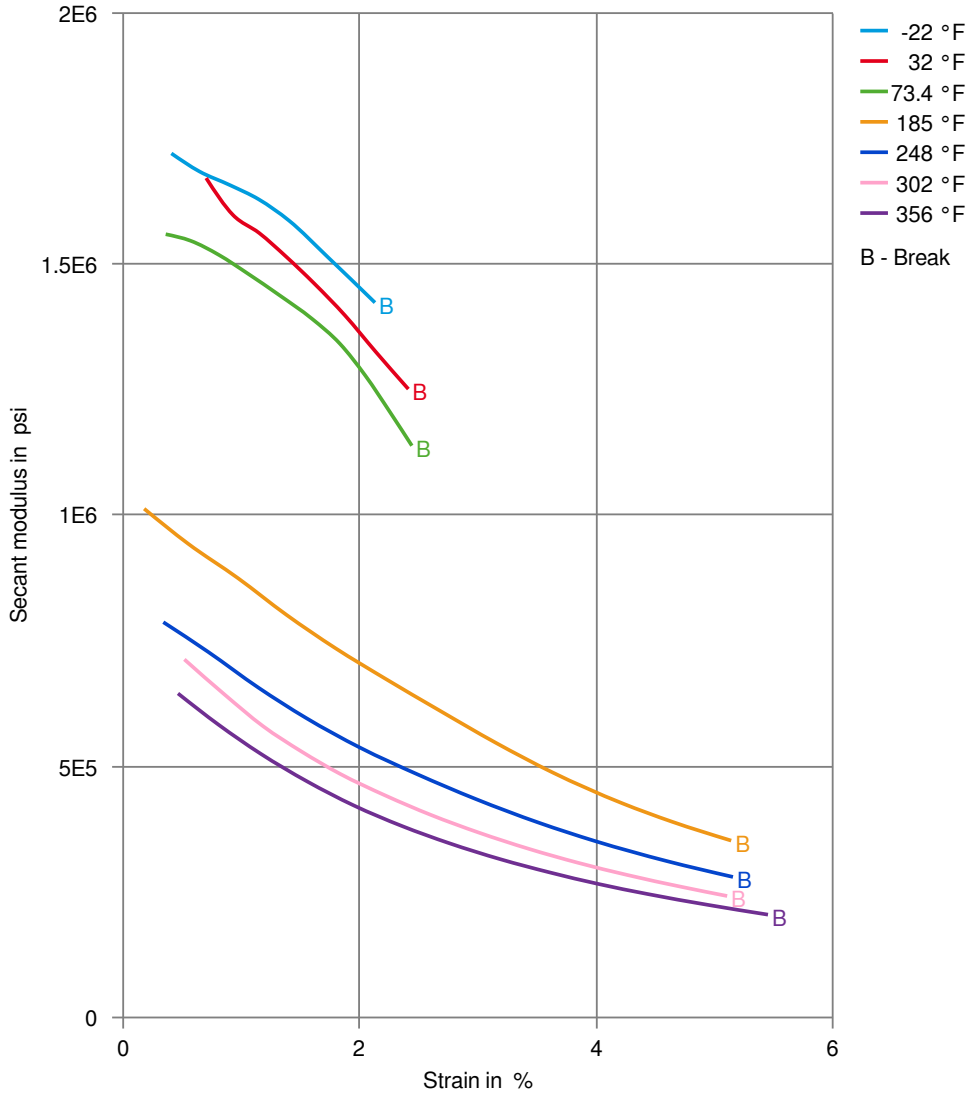
Stress-strain (cond.)



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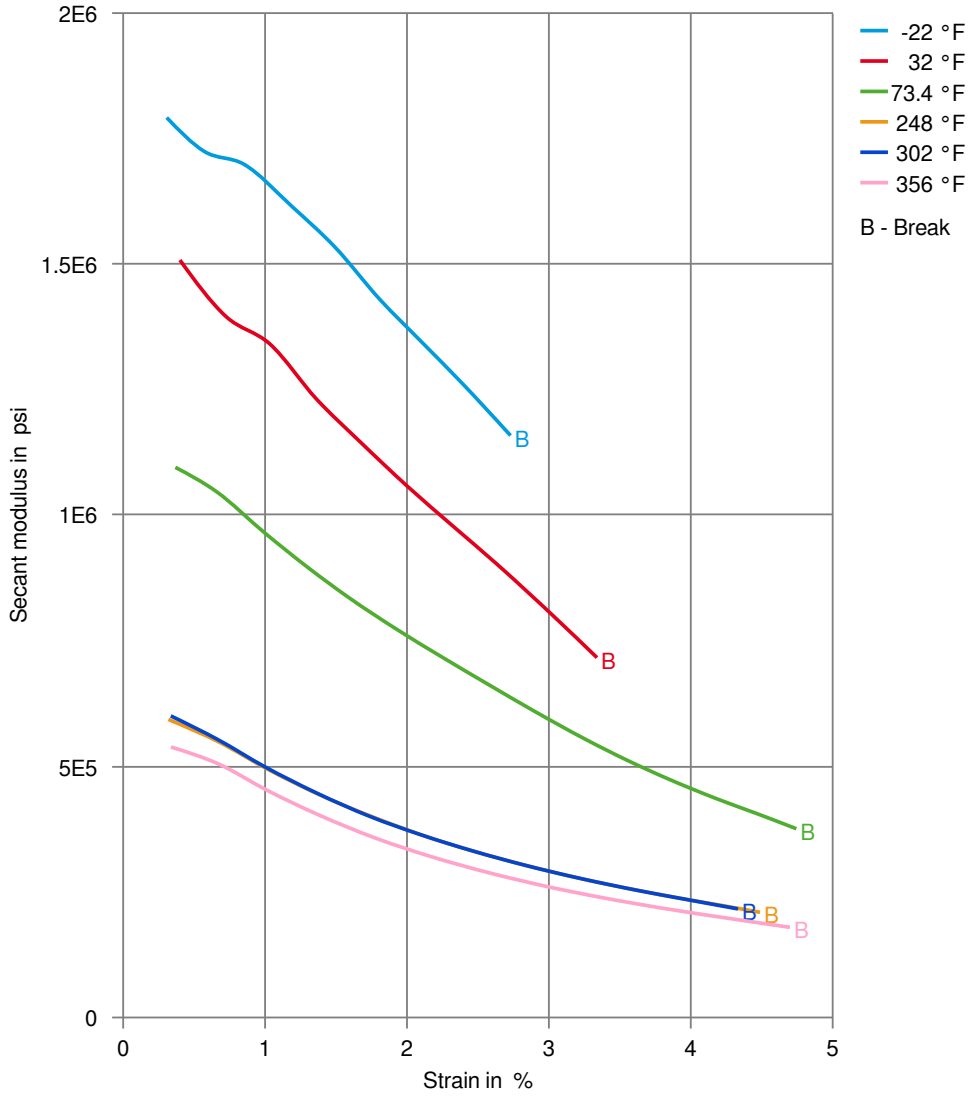
Secant modulus-strain (dry)



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Secant modulus-strain (cond.)



Revised: 2026-08-12 Source: Celanese Materials Database

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