FRIANYL® A3 RV0

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Designed for Electrical applications requiring self-extinguishing properties combined with easy processability and good surface quality, this grade meets the most stringent safety requirements for insulating materials.

Product information

Resin Identification	PA66-FR(30)		ISO 1043
Part Marking Code	>PA66-FR(30)<		ISO 11469
Continuous Service Temperature	266	°F	IEC 60216-1

Rheological properties

	dry/cond.		
Viscosity number	4010 / *	in³/lb	ISO 307, 1628
Molding shrinkage, parallel	1.2 / -	%	ISO 294-4, 2577
Molding shrinkage range, parallel	1 - 1.4	%	ISO 294-4, 2577
Molding shrinkage, normal	1.2 / -	%	ISO 294-4, 2577
Molding shrinkage range, normal	1 - 1.4	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	508000 / 189000	psi	ISO 527-1/-2
Tensile stress at yield, 50mm/min	12000 / 7300	psi	ISO 527-1/-2
Tensile strain at yield, 50mm/min	3.5 / -	%	ISO 527-1/-2
Tensile strain at break, 50mm/min	10 / >50	%	ISO 527-1/-2
Charpy impact strength, 23 °C	23.8 / -	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23 °C	1.43 / -	ftlb/in²	ISO 179/1eA

Thermal properties

	dry/cond.		
Melting temperature, 10 °C/min	500 / *	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	176 / *	°F	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	374 / *	°F	ISO 75-1/-2
Ball pressure test	347 / -	°F	IEC 60695-10-2

Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.0098 / *	in	IEC 60695-11-10
UL recognition	yes / *		UL 94
Glow Wire Flammability Index, 0.75mm	1760 / -	°F	IEC 60695-2-12
Glow Wire Flammability Index, 3.0mm	1760 / -	°F	IEC 60695-2-12
FMVSS Class	SE		ISO 3795 (FMVSS 302)
Railway classification	R22 / R24		EN 45545-2
Railway classification rating	HL3 / HL3		EN 45545-2

Electrical properties

	dry/cond.		
Volume resistivity	1E12 / -	Ohm.m	IEC 62631-3-1
Comparative tracking index	600 / -		IEC 60112

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Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	2.1 / *	%	Sim. to ISO 62
Water absorption, 2mm	7.4 / *	%	Sim. to ISO 62
Density	0.0419 / -	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	176	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.1	%
Melt Temperature Optimum	527	°F
Min. melt temperature	509	°F
Max. melt temperature	545	°F
Max. screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	158	°F
Min. mold temperature	140	°F
Max. mold temperature	194	°F
Ejection temperature	428	°F

Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
Stellantis	B62 0300 / 61/217E/214M/C4	01378_20_00621
VW Group	VW 50133	*Best Fitting Grade To PA66-1-A, Not Officially Approved

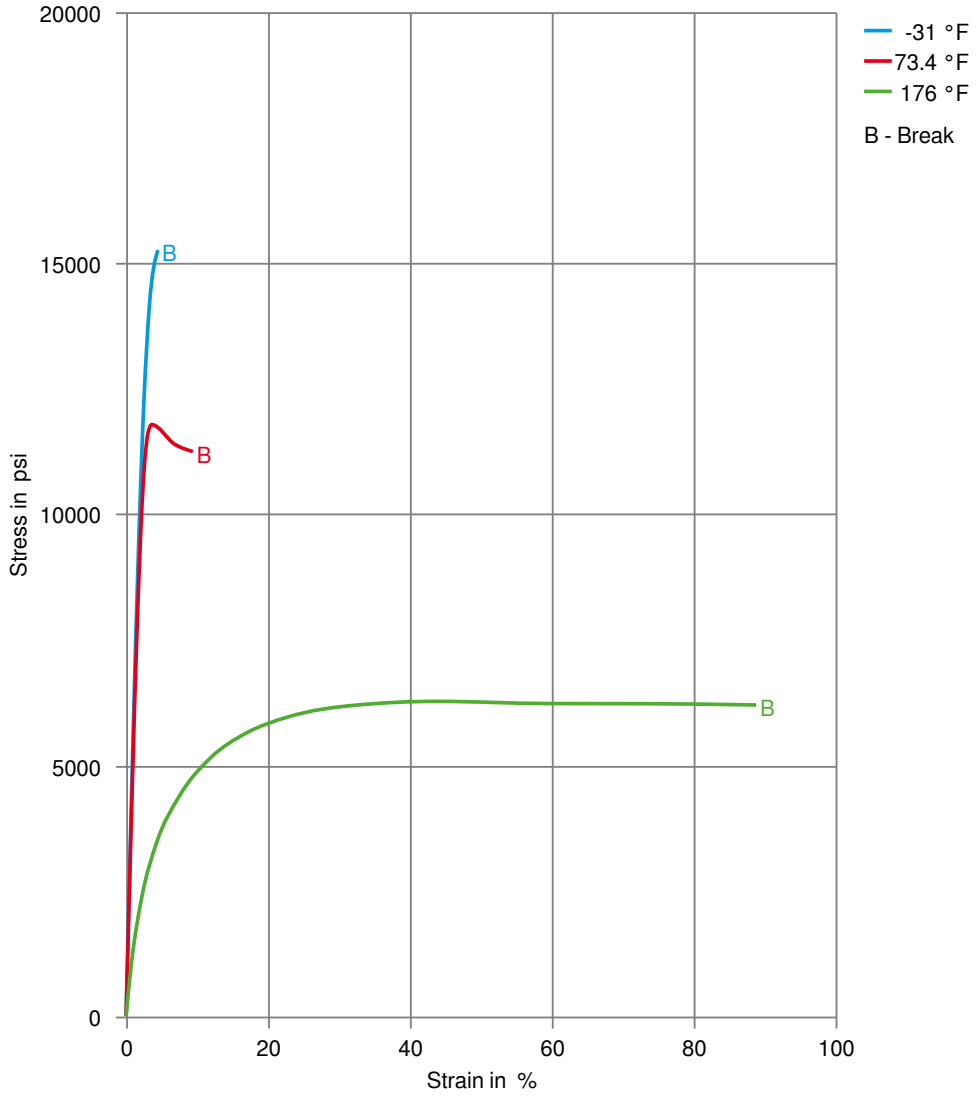
Characteristics

Processing	Injection Molding
Additives	Flame retardant, Non-halogenated/Red phosphorus free flame retardant
Special characteristics	Flame retardant, Heat stabilized or stable to heat

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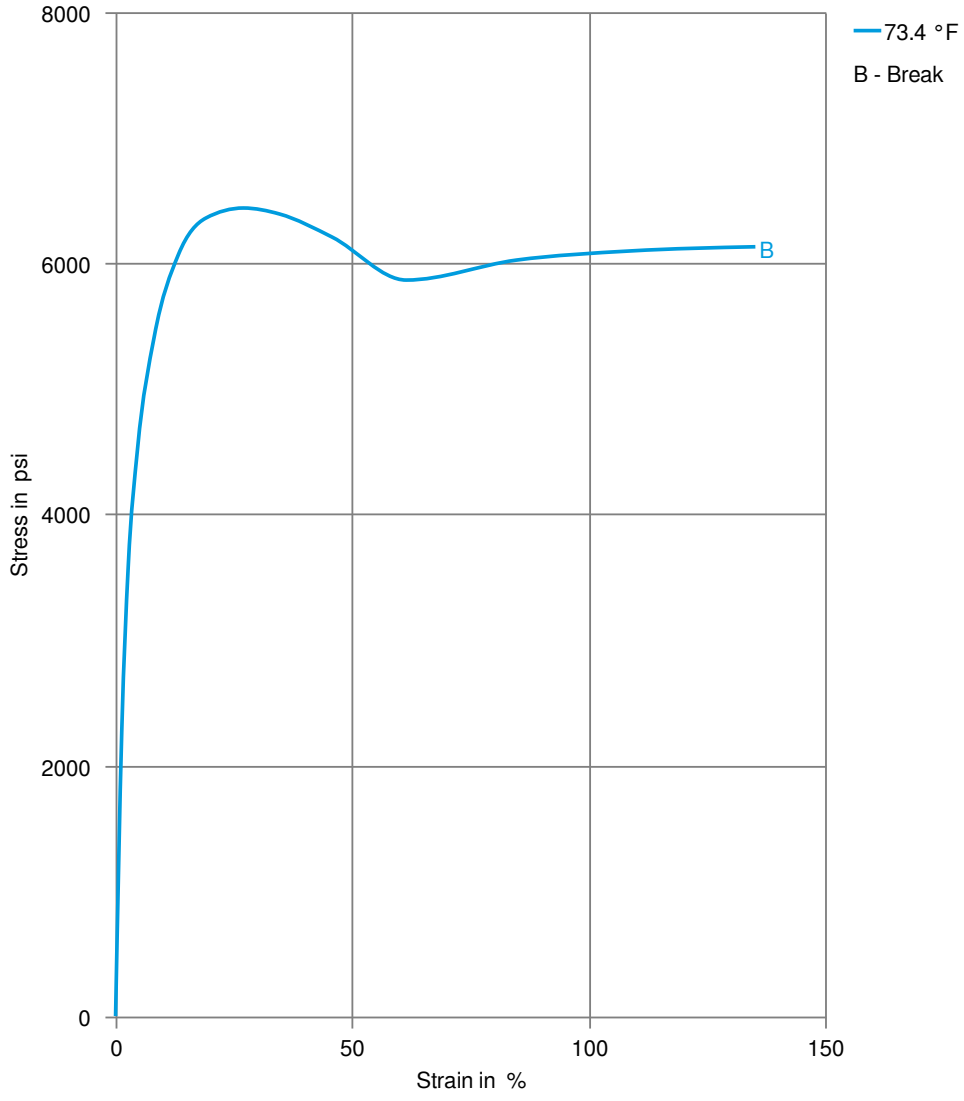
Stress-strain (dry)



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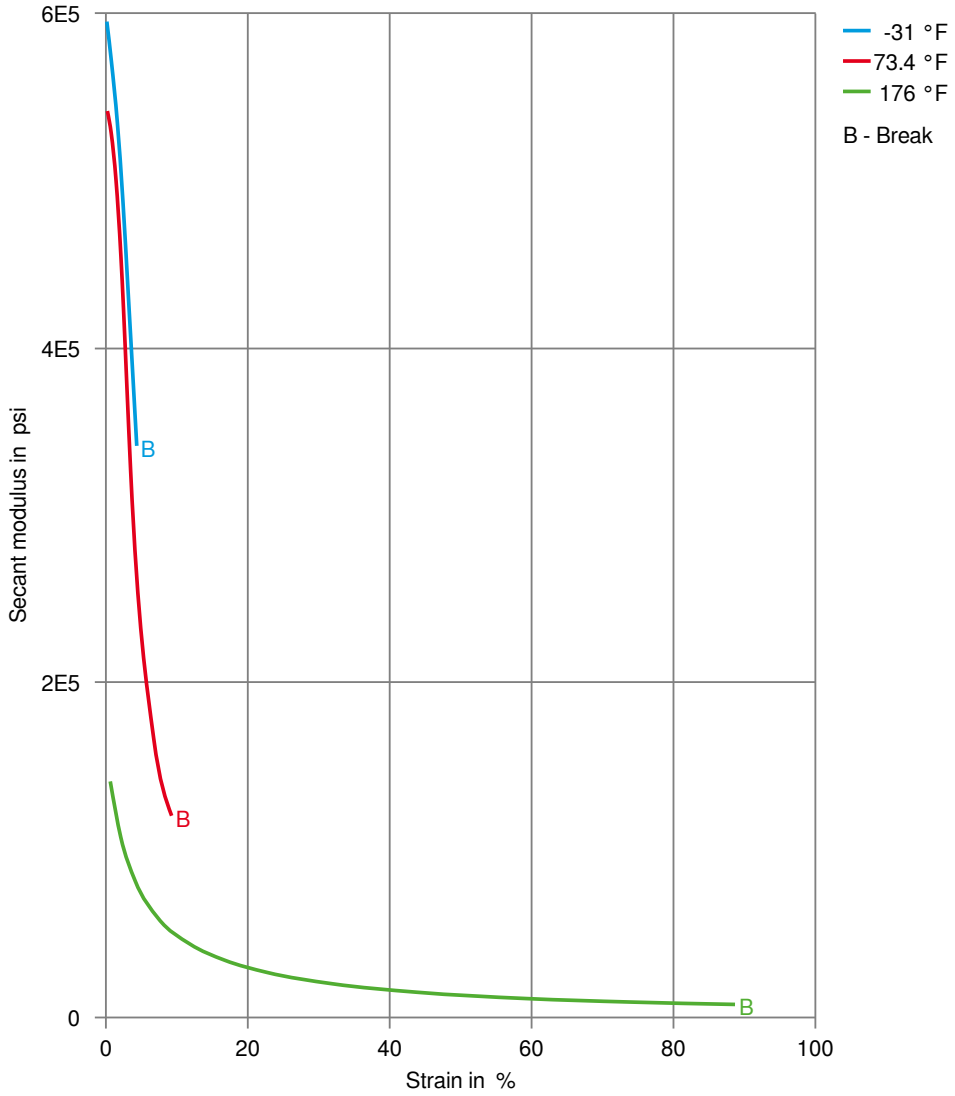
Stress-strain (cond.)



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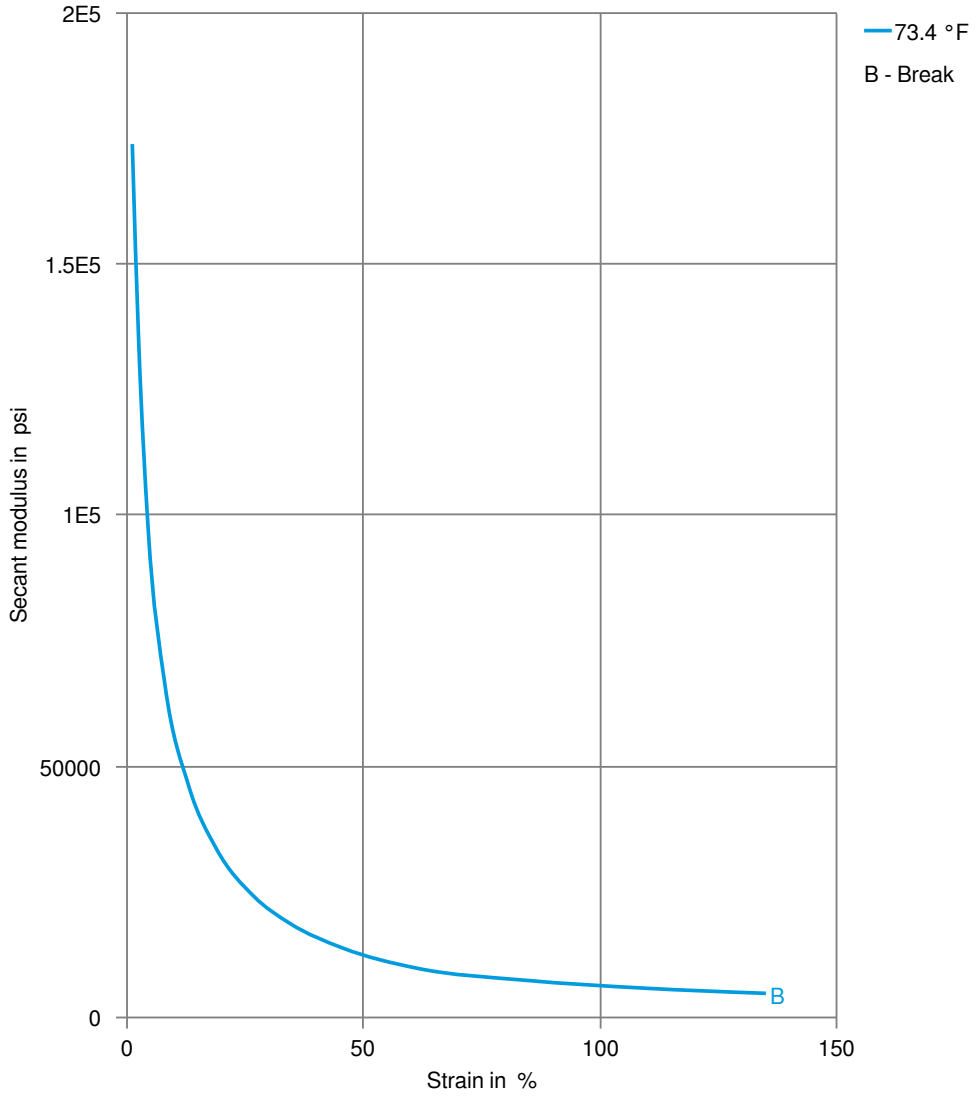
Secant modulus-strain (dry)



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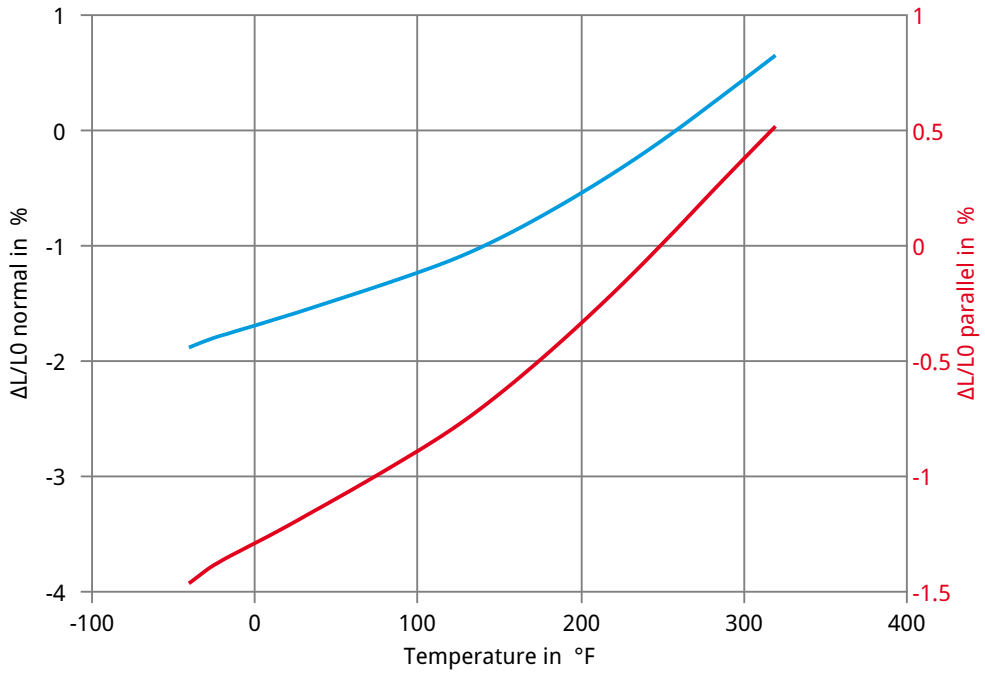
Secant modulus-strain (cond.)



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Thermal expansion



Revised: 2026-03-23 Source: Celanese Materials Database

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