FRIANYL® A3 W GF25 V0E BK 9004/YG

FRIANYL®

Designed for Electrical applications requiring self-extinguishing properties combined with good mechanical performances, this grade meets the most stringent safety requirements for insulating materials. Ideal for thicker walled parts.

Product information

Resin Identification	(PA66+PA6)-GF25 FR(40)	ISO 1043
Part Marking Code	>(PA66+PA6)-GF25 FR(40)<	ISO 11469
Continuous Service Temperature	266 °F	IEC 60216-1

Typical mechanical properties

	dry/cond.		
Tensile modulus	1.31E6 / 798000	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	19600 / 13100	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	3 / 8	%	ISO 527-1/-2
Charpy impact strength, 23 °C	28.5 / 28.5	ftlb/in²	ISO 179/1eU
Charpy impact strength, -30 °C	23.8 / 23.8	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23 °C	4.04 / 6.18	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -30 °C	3.33 / 3.33	ftlb/in²	ISO 179/1eA

Thermal properties

	dry/cond.		
Melting temperature, 10 °C/min	500 / *	°F	ISO 11357-1/-3

Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.0591 / *	in	IEC 60695-11-10
UL recognition	yes / *		UL 94
Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.1181 / *	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

Electrical properties

	dry/cond.		
Volume resistivity	1E11 / -	Ohm.m	IEC 62631-3-1
Surface resistivity	* / 1E11	Ohm	IEC 62631-3-2
Electric strength	1140 / -	kV/in	IEC 60243-1
Comparative tracking index	600 / -		IEC 60112

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.6 / *	%	Sim. to ISO 62
Water absorption, 2mm	5.3 / *	%	Sim. to ISO 62
Density	0.0491 / -	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	176	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.1	%

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Melt Temperature Optimum	545	°F
Min. melt temperature	518	°F
Max. melt temperature	572	°F
Max. screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	176	°F
Min. mold temperature	140	°F
Max. mold temperature	212	°F

Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
Renault	UB22a, BB/YG, No Spec, Special Part Approval, See Your CE Account Manager.	
Renault	UB22b, No Spec, Special Part Approval, See Your CE Account Manager.	
Renault	UB22c, No Spec, Special Part Approval, See Your CE Account Manager.	
Renault	UB22d, No Spec, Special Part Approval, See Your CE Account Manager.	
VW Group	VW 50133	*Best Fitting Grade To PA66-5-A, Not Officially Approved

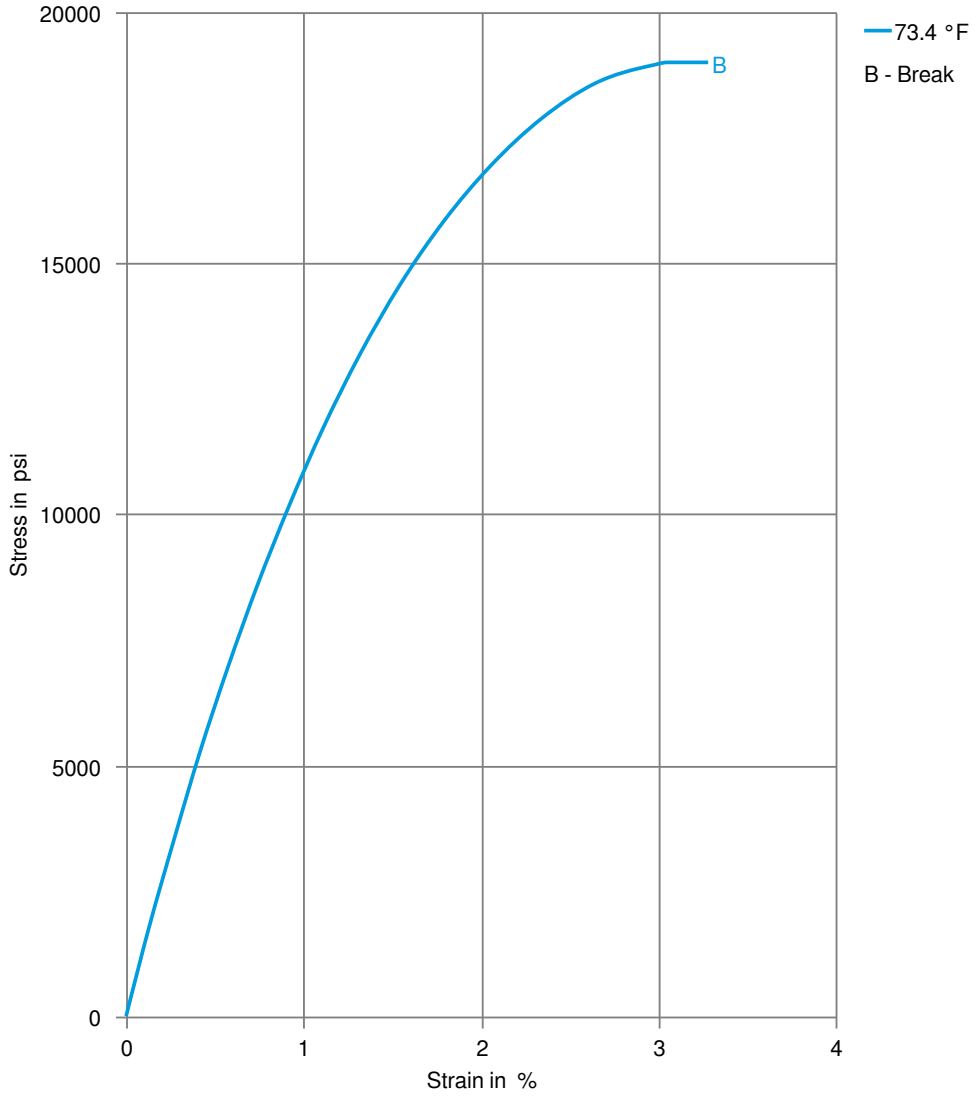
Characteristics

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

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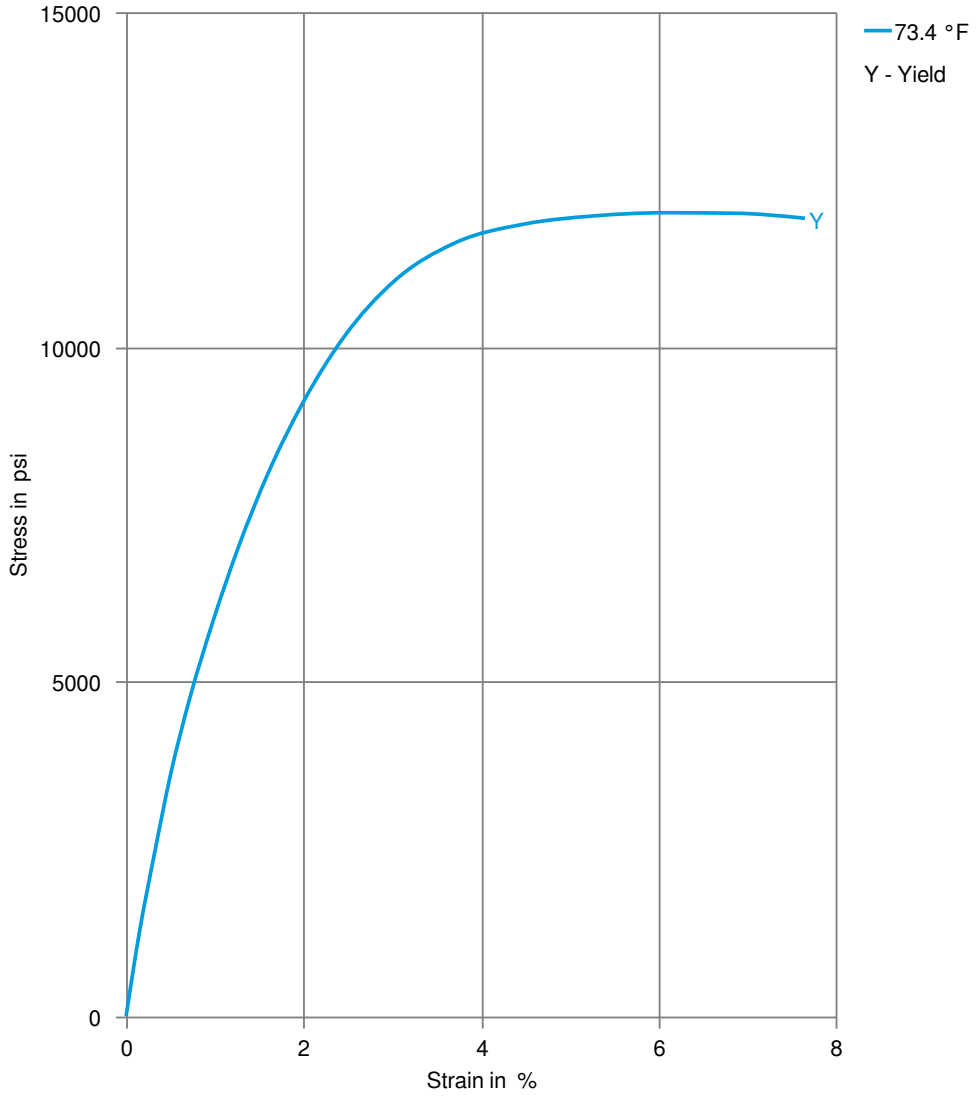
Stress-strain (dry)



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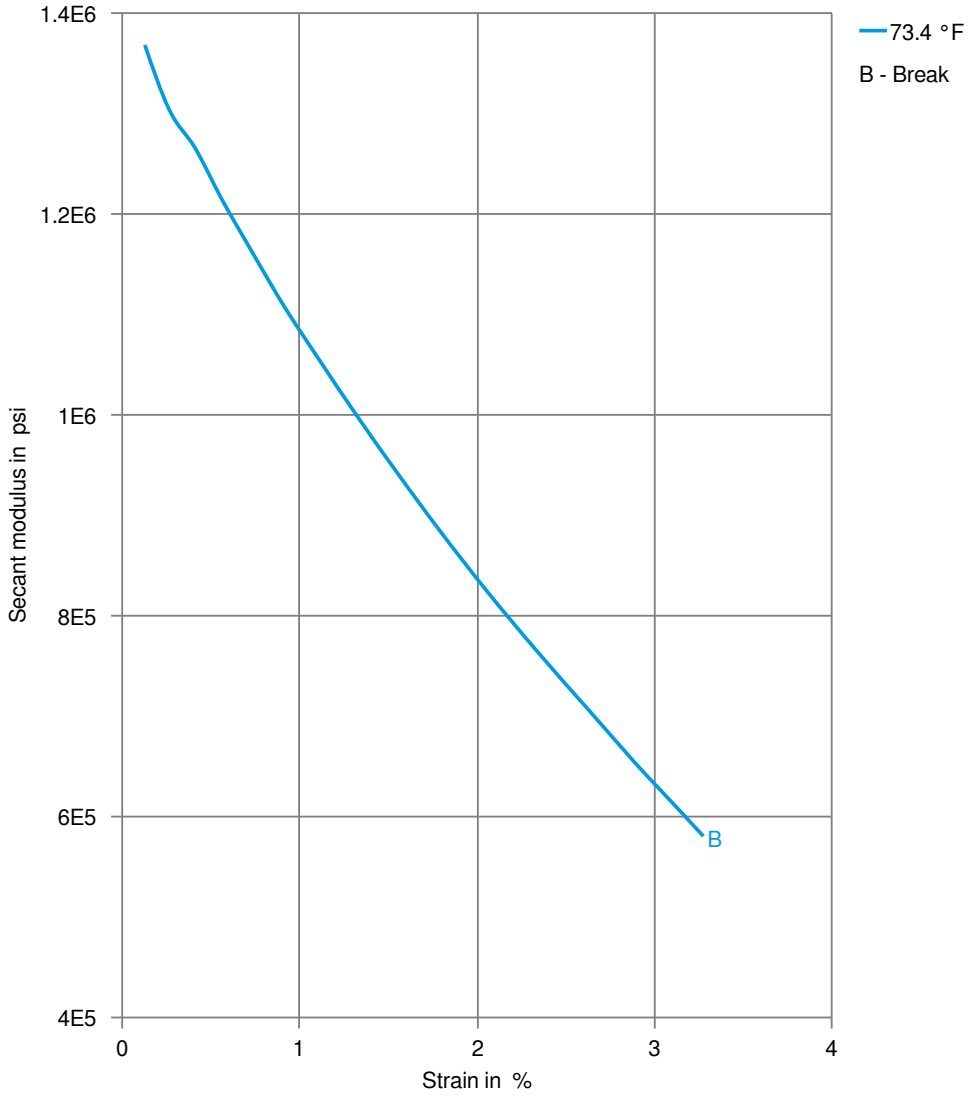
Stress-strain (cond.)



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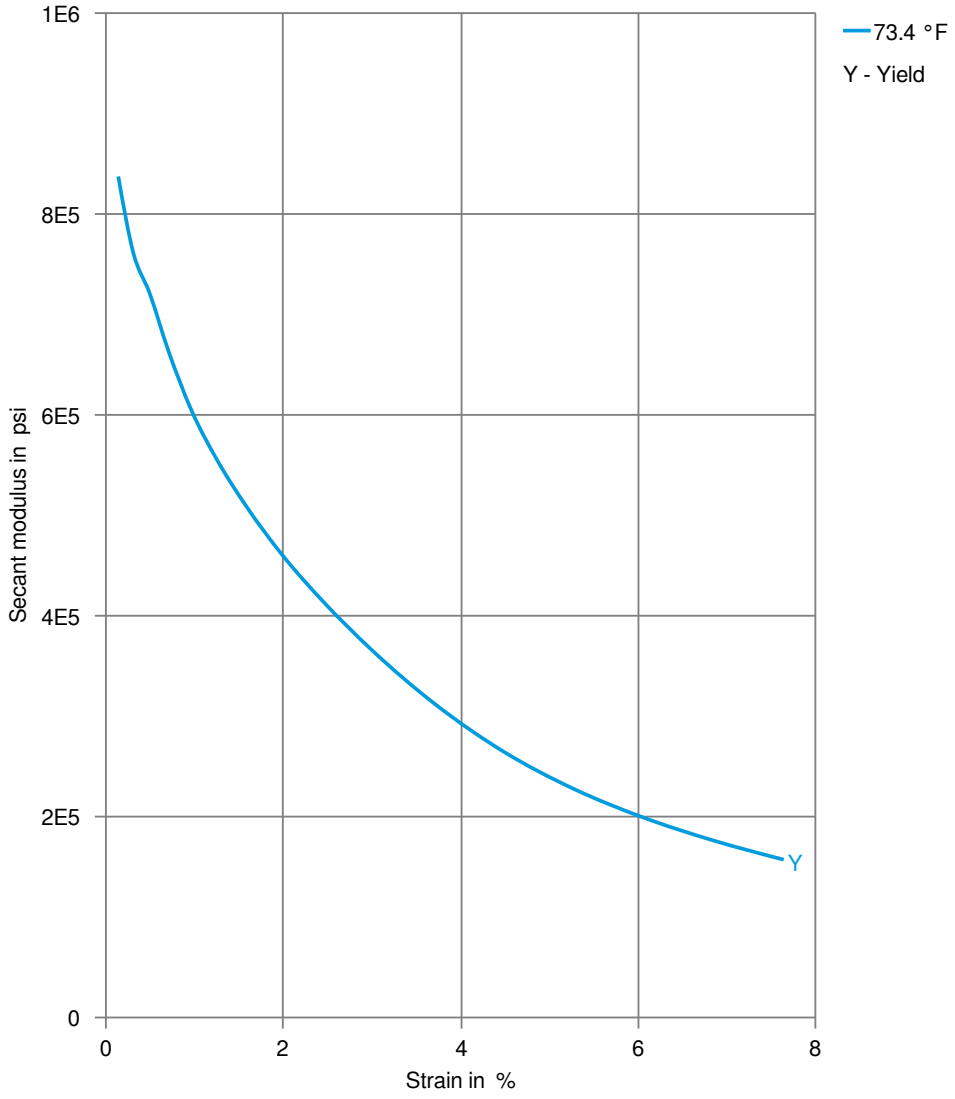
Secant modulus-strain (dry)



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Secant modulus-strain (cond.)



Revised: 2026-04-10 Source: Celanese Materials Database

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