

FRIANYL® A3 W GF25 V0E BK 9004/YG

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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	130 °C	IEC 60216-1

Rheological properties

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

Typical mechanical properties

	dry/cond.		
Tensile modulus	9000 / 5500	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	135 / 90	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	3 / 8	%	ISO 527-1/-2
Charpy impact strength, 23 °C	60 / 60	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30 °C	50 / 50	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23 °C	8.5 / 13	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30 °C	7 / 7	kJ/m ²	ISO 179/1eA
Poisson's ratio	0.34 / 0.35 ^[C]		
[C]: Calculated			

Thermal properties

	dry/cond.		
Melting temperature, 10 °C/min	260 / *	°C	ISO 11357-1/-3

Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
UL recognition	yes / *		UL 94
Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10
UL recognition	yes / *		UL 94
Glow Wire Flammability Index, 0.75mm	960 / -	°C	IEC 60695-2-12
Glow Wire Flammability Index, 3.0mm	960 / -	°C	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	45 / -	kV/mm	IEC 60243-1
Comparative tracking index, 100 drops	600		IEC 60112

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Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.6 / *	%	Sim. to ISO 62
Water absorption, 2mm	5.3 / *	%	Sim. to ISO 62
Density	1360 / -	kg/m ³	ISO 1183

Injection

Drying Recommended	yes
Drying Temperature	80 °C
Drying Time, Dehumidified Dryer	2 - 4 h
Processing Moisture Content	≤0.1 %
Melt Temperature Optimum	285 °C
Min. melt temperature	270 °C
Max. melt temperature	300 °C
Screw tangential speed	≤0.2 m/s
Mold Temperature Optimum	80 °C
Min. mould temperature	60 °C
Max. mould temperature	100 °C

Characteristics

Processing	Injection Moulding
Delivery form	Granules
Additives	Flame retardant, Non-halogenated/Red phosphorous free flame retardant, Low halide content
Special characteristics	Flame retardant, Heat stabilised or stable to heat

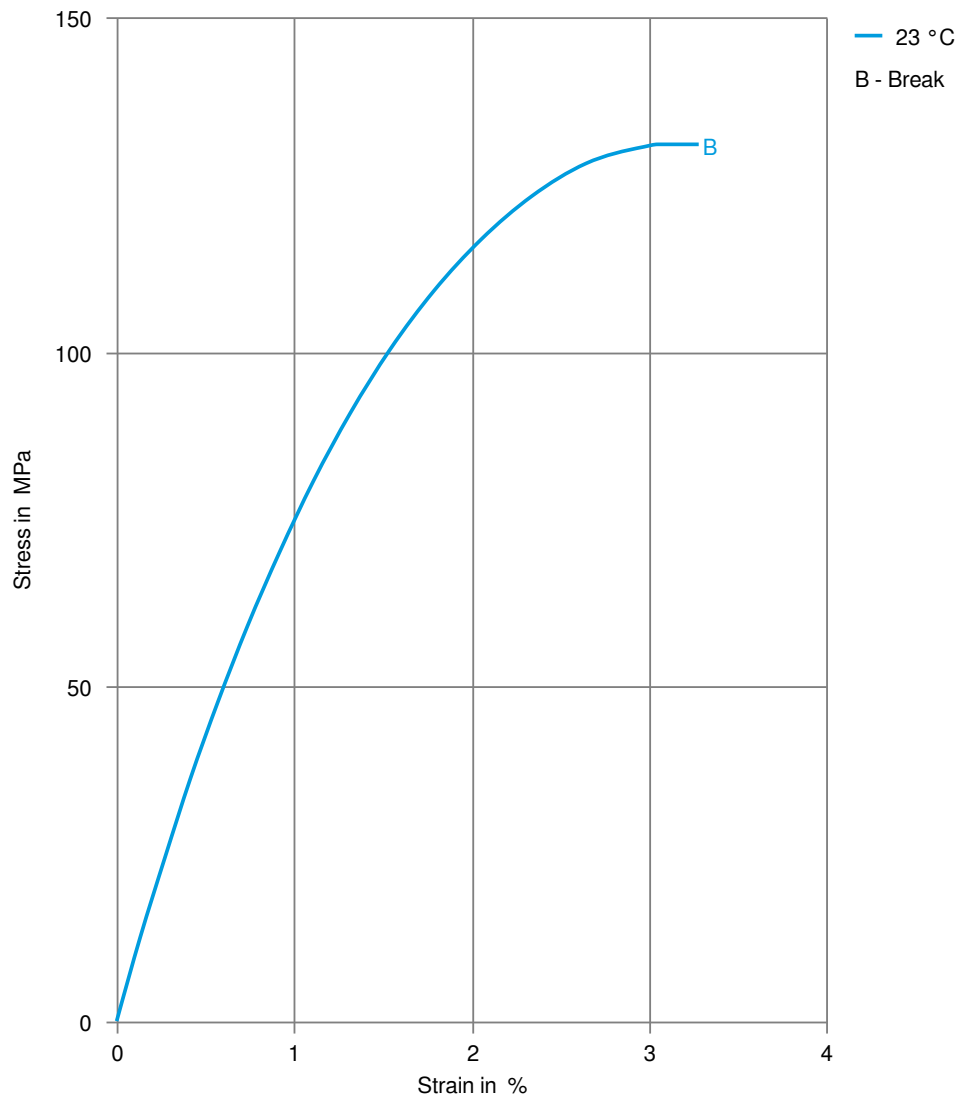
Automotive

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

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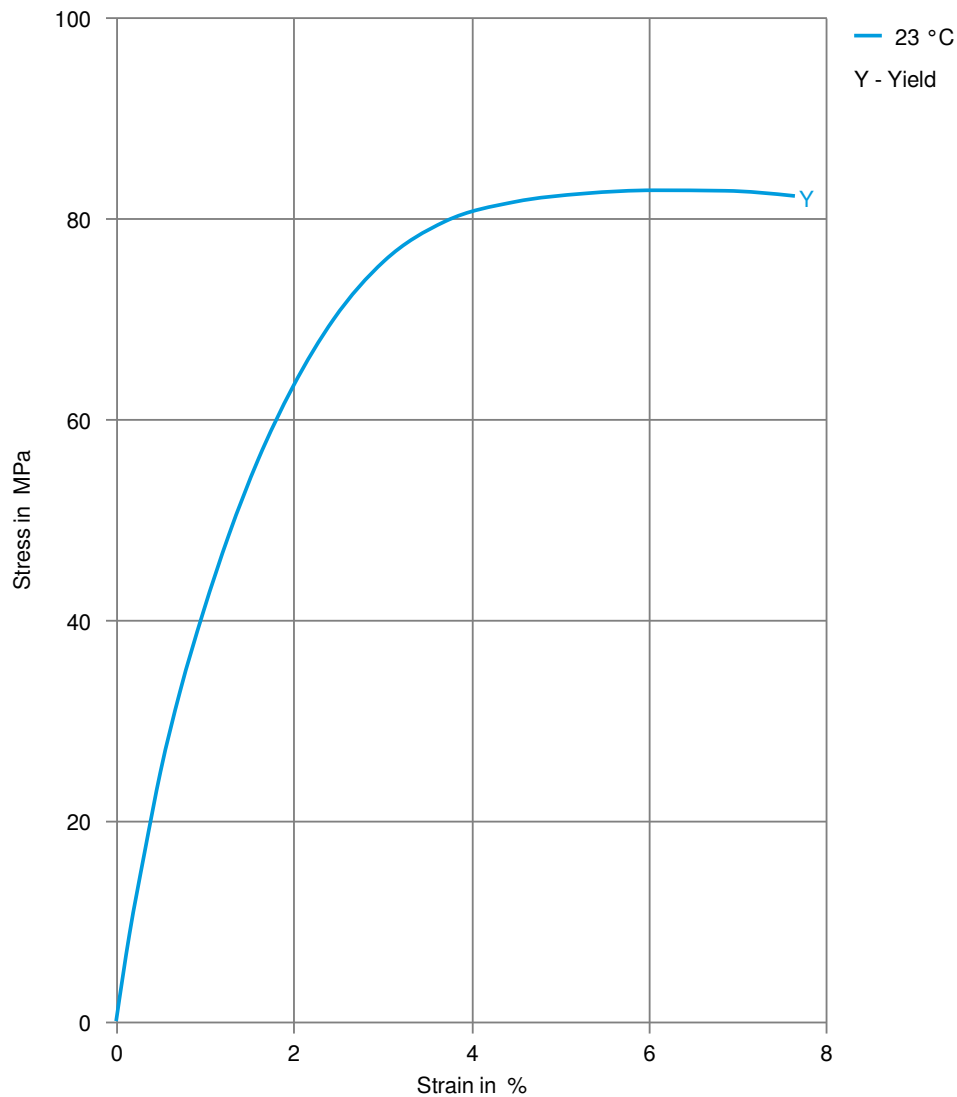
Stress-strain (dry)



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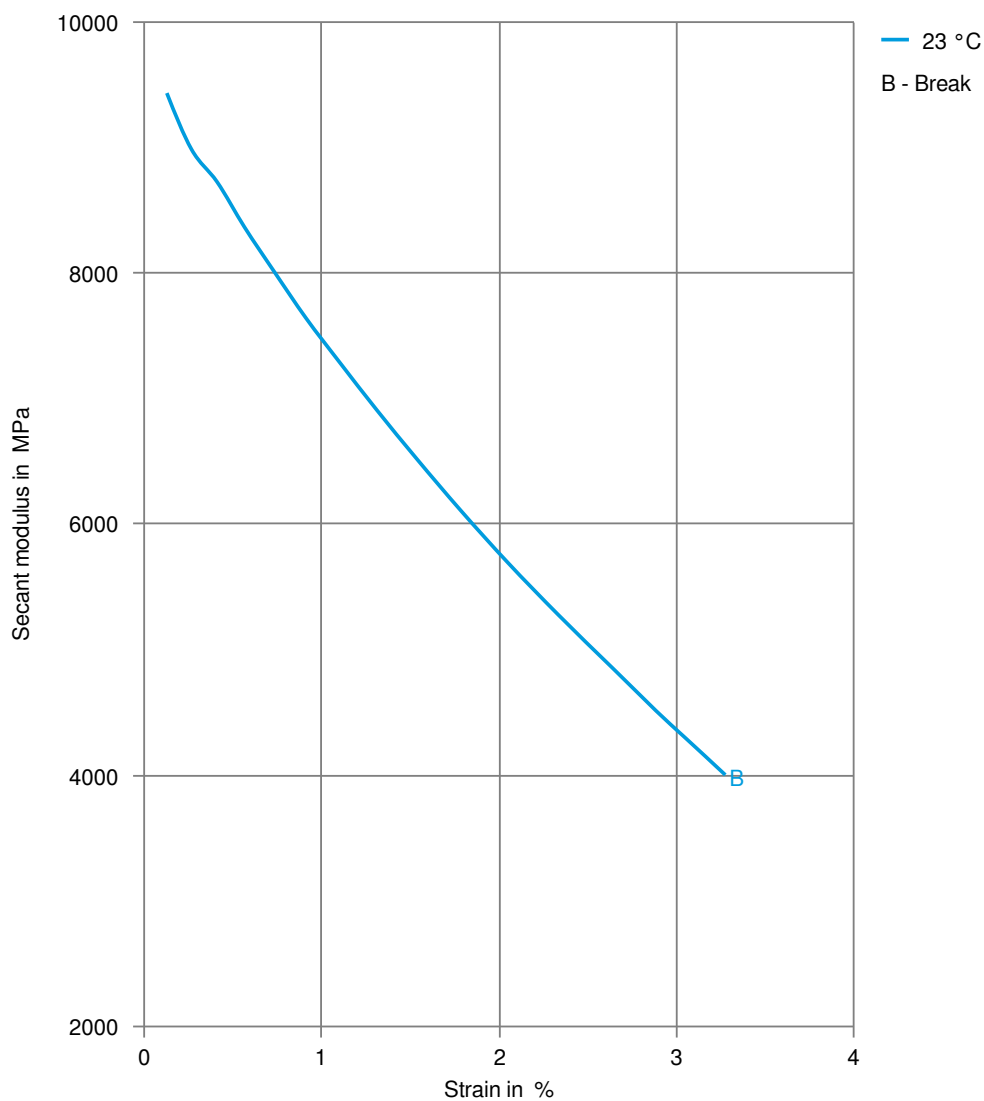
Stress-strain (cond.)



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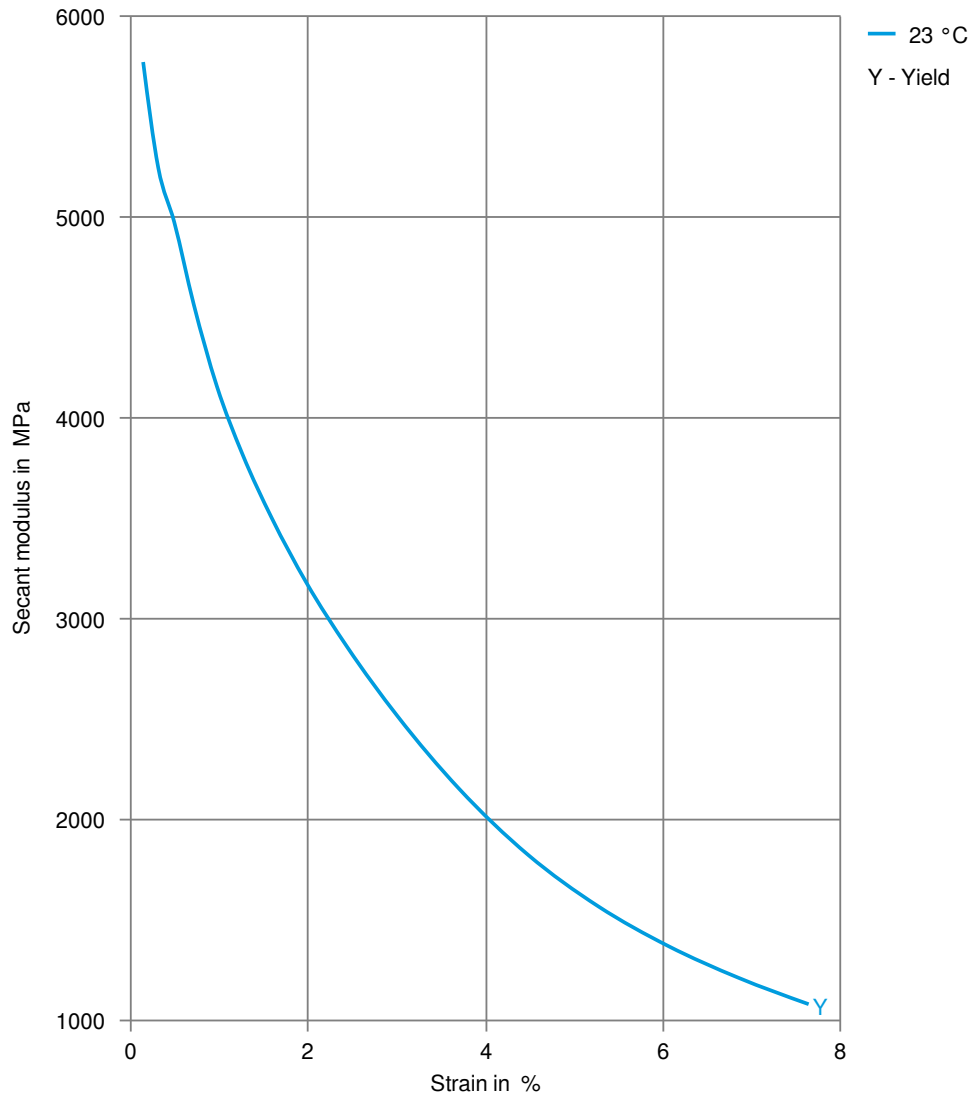
Secant modulus-strain (dry)



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Secant modulus-strain (cond.)



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