

FRIANYL[®] A3 W GF30 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

1 Toddet information			
Resin Identification	(PA66+PA6)-GF30FR(40)		ISO 1043
Part Marking Code	>(PA66+PA6)-GF	=30FR(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	10500/6500	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	145/100	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.5/5	%	ISO 527-1/-2
Charpy impact strength, 23°C	60/60	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	55/55	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	9/15	kJ/m ²	ISO 179/1eO
	7.5/7.5	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	0.34/0.35 ^[C]	KJ/III ⁻	150 179/TeA
Poisson's ratio	0.34/0.35		
[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
Clow Wire Hammability Index, 5.0mm	5007-	0	120 00000 212
Electrical properties	dry/cond.		
Volume resistivity	1E14/-	Ohm.m	IEC 62631-3-1
Surface resistivity	*/1E13	Ohm	IEC 62631-3-2
Electric strength	45/-	kV/mm	IEC 60243-1
Electric strength, Direct Current	18.7	kV/mm	IEC 60243-2
Comparative tracking index, 100 drops	600		IEC 60112





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Physical/Other properties	dry/cond.			
Humidity absorption, 2mm Water absorption, 2mm Density	1.4/* 4.9/* 1410/-		im. to ISO 62 im. to ISO 62 ISO 1183	
Injection				
Drying Recommended Drying Temperature Drying Time, Dehumidified Dryer Processing Moisture Content Melt Temperature Optimum Min. melt temperature Max. melt temperature Screw tangential speed Mold Temperature Optimum Min. mould temperature Max. mould temperature Ejection temperature	2 - 4 ≤0.1 285 270 300 ≤0.2 80	% °C °C °C m/s °C °C °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			

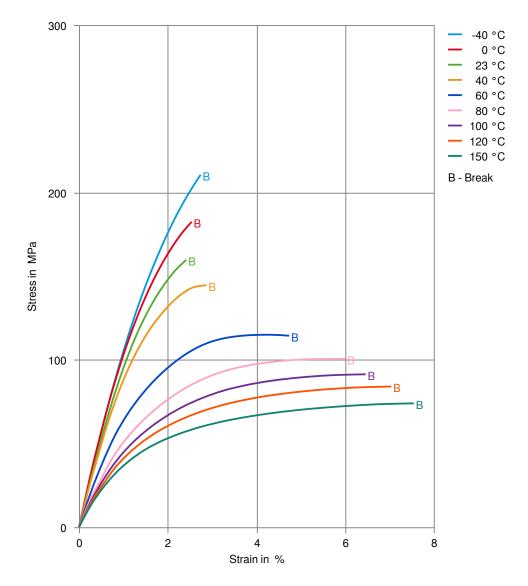
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Stress-strain (dry)

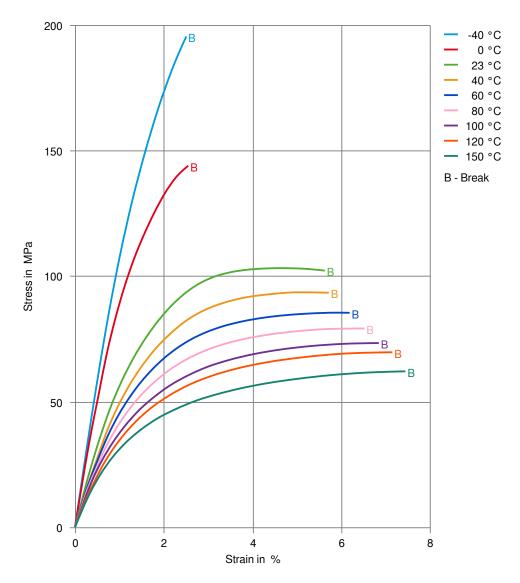






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Stress-strain (cond.)

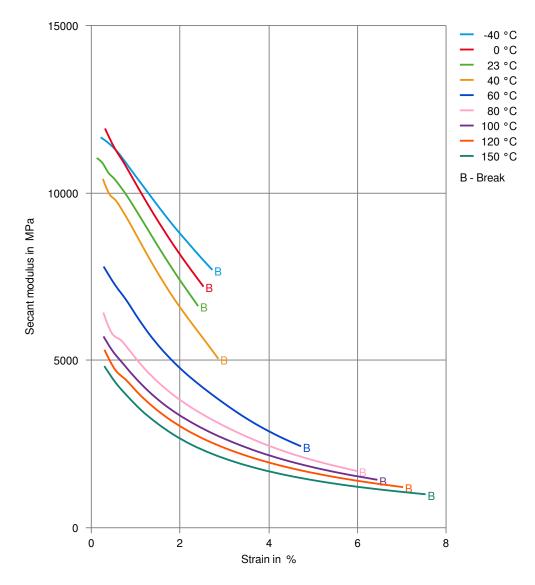






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Secant modulus-strain (dry)

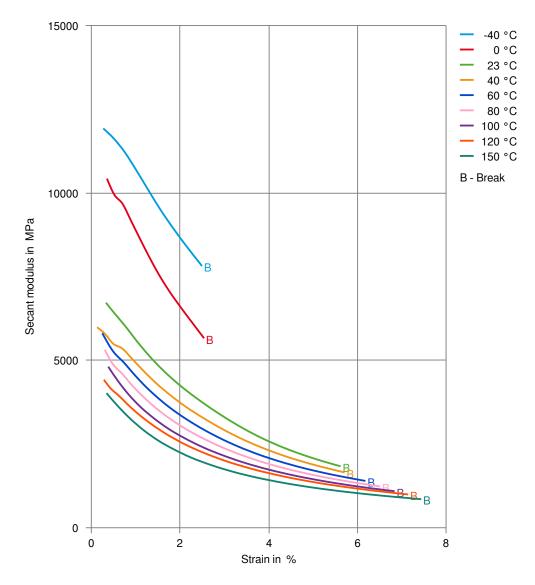






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Secant modulus-strain (cond.)



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