

# FRIANYL<sup>®</sup> A3 W GF35 V0E BK 9004/YG

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 thick walled parts.

### **Product information**

Resin Identification Part Marking Code Continuous Service Temperature	(PA66+PA6)-GF3 >(PA66+PA6)-GF 130		ISO 1043 ISO 11469 IEC 60216-1
Rheological properties			
Moulding shrinkage range, parallel Moulding shrinkage range, normal	0.2 - 0.5 0.5 - 0.8		ISO 294-4, 2577 ISO 294-4, 2577
Typical mechanical properties	dry/cond.		
Tensile modulus Tensile stress at break, 5mm/min Tensile strain at break, 5mm/min Charpy impact strength, 23°C Charpy impact strength, -30°C Charpy notched impact strength, 23°C Charpy notched impact strength, -30°C Poisson's ratio [C]: Calculated	12000/7500 155/110 2.5/5 65/65 60/60 9.5/15 8/8 0.33/0.34 <sup>[C]</sup>	MPa MPa % kJ/m <sup>2</sup> kJ/m <sup>2</sup> kJ/m <sup>2</sup>	ISO 527-1/-2 ISO 527-1/-2 ISO 527-1/-2 ISO 179/1eU ISO 179/1eU ISO 179/1eA ISO 179/1eA
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. Thickness tested UL recognition Burning Behav. at thickness h Thickness tested UL recognition Glow Wire Flammability Index, 0.75mm Glow Wire Flammability Index, 3.0mm FMVSS Class	V-0/* 1.5/* yes/* V-0/* 3/* yes/* 960/- 960/- SE	class mm class mm °C °C	IEC 60695-11-10 IEC 60695-11-10 UL 94 IEC 60695-11-10 IEC 60695-11-10 UL 94 IEC 60695-2-12 IEC 60695-2-12 IEC 60695-2-12 ISO 3795 (FMVSS 302)
Electrical properties	dry/cond.		
Volume resistivity Surface resistivity Electric strength Comparative tracking index, 100 drops	1E12/- */1E13 48/- 600	Ohm.m Ohm kV/mm	IEC 62631-3-1 IEC 62631-3-2 IEC 60243-1 IEC 60112





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Physical/Other properties	dry/cond.			
Humidity absorption, 2mm Water absorption, 2mm	1.2/* 4.3/*	%	Sim. to ISO 62 Sim. to ISO 62	
Density	1460/-	kg/m <sup>3</sup>	ISO 1183	
Injection				
Drying Recommended	yes			
Drying Temperature		°C		
Drying Time, Dehumidified Dryer	2 - 4			
Processing Moisture Content	≤0.1			
Melt Temperature Optimum Min. melt temperature	285 270			
Max. melt temperature	300	-		
Screw tangential speed	≤0.2			
Mold Temperature Optimum		°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			

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