

FRIANYL® A3 GF35 V0 BK 9005/M

Designed for Electrical applications requiring self-extinguishing properties combined with high stiffness, this grade meets the most stringent safety requirements for insulating materials.

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 yield, 50mm/min Tensile strain at yield, 50mm/min Tensile strain at break, 50mm/min Tensile strain at break, 5mm/min Flexural modulus Flexural strength Flexural strength Flexural strain at failure Charpy impact strength, 23°C Charpy notched impact strength, 23°C Ball indentation hardness, H 961/30 Poisson's ratio [C]: Calculated	12500/8500 140/95 2.1/4.2 155/105 2.5/4 12000/8000 250/160 2.5/3.5 58/62 9.5/12.5 250/- 0.33/0.34 ^[C]	MPa MPa % MPa MPa % kJ/m ² kJ/m ² MPa	ISO 527-1/-2 ISO 527-1/-2 ISO 527-1/-2 ISO 527-1/-2 ISO 527-1/-2 ISO 178 ISO 178 ISO 178 ISO 179/1eU ISO 179/1eA ISO 2039-1
Thermal properties	dry/cond.		
Melting temperature, 10°C/min Temperature of deflection under load, 1.8 MPa Temperature of deflection under load, 0.45 MPa Ball pressure test Coefficient of linear thermal expansion (CLTE), parallel Coefficient of linear thermal expansion (CLTE), normal	260/* 210/* 220/* 175/- 22/* 113/*	°C °C °C C E-6/K E-6/K	ISO 11357-1/-3 ISO 75-1/-2 ISO 75-1/-2 IEC 60695-10-2 ISO 11359-1/-2 ISO 11359-1/-2
Flammability	dry/cond.		
Burning Behav. at 1.5mm nom. thickn. Burning Behav. at thickness h Thickness tested UL recognition Glow Wire Flammability Index, 0.75mm Glow Wire Flammability Index, 1.0mm Glow Wire Flammability Index, 3.0mm FMVSS Class	V-0/* V-0/* 0.4/* yes/* 960/- 960/- SE	class class mm °C °C °C	IEC 60695-11-10 IEC 60695-11-10 IEC 60695-11-10 UL 94 IEC 60695-2-12 IEC 60695-2-12 IEC 60695-2-12 IEC 60695-2-12

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Electrical properties Electric strength Comparative tracking index, 100 drop	dry/cond. 23/- s 600	kV/mm	IEC 60243-1 IEC 60112
Physical/Other properties	dry/cond.		
Humidity absorption, 2mm Water absorption, 2mm Density	1.1/* 4.2/* 1470/-	% % kg/m³	Sim. to ISO 62 Sim. 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	2 - 4 ≤0. 285 270 300 ≤0.2 80 60	O°C	
Processing	Injection Moulding		
Delivery form	Granules		
Additives	Flame retardant, Non-halogenated/Red phosphorous free flame retardant		
Special characteristics	Flame retardant, Heat stabilised or stable to heat		
Automotive			
OEM VW Group	STANDARD VW 50133	ADDITIONAL INFOR	MATION o PA66-7-A, Not Officially

*Best Fitting Grade To PA66-7-A, Not Officially Approved

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