



FRIANYL® A3 GF25 V0 GN 6032/J

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.

Product information

Resin Identification Part Marking Code Continuous Service Temperature	PA66-GF25 FR(40) >PA66-GF25 FR(40)< 130 °C		ISO 1043 ISO 11469 IEC 60216-1
Continuous Corvice Temperature	100	J	120 00210 1
Rheological properties	dry/cond.		
Viscosity number	140/*	cm³/g	ISO 307, 1628
Moulding shrinkage range, parallel	0.3 - 0.7	%	ISO 294-4, 2577
Moulding shrinkage range, normal	0.8 - 1.2	%	ISO 294-4, 2577
Typical mechanical properties	dry/cond.		
Tensile modulus	8500/4700	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	100/49	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2/2.7	%	ISO 527-1/-2
Flexural modulus	-/6000	MPa	ISO 178
Flexural strength	-/120	MPa	ISO 178
Charpy impact strength, 23°C	32/-	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	4/6.6	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30 °C	3/-	kJ/m²	ISO 179/1eA
Ball indentation hardness, H 961/30	210/-	MPa	ISO 2039-1
Poisson's ratio	0.34/0.36 ^[C]		
[C]: Calculated			
Thermal properties	dry/cond.		
Melting temperature, 10°C/min	260/*	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	210/*	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	220/*	°C	ISO 75-1/-2
Flammability	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	V-0/*	class	IEC 60695-11-10
Thickness tested	1.6/*	mm	IEC 60695-11-10
Burning Behav. at thickness h	V-0/*	class	IEC 60695-11-10
Thickness tested	0.4/*	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
Glow Wire Ignition Temperature, 0.75mm	775/-	°C	IEC 60695-2-13
Glow Wire Ignition Temperature, 3.0mm	800/-	°C	IEC 60695-2-13

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Electrical properties

Volume resistivity 1E13/- Ohm.m IEC 62631-3-1 Comparative tracking index 600/- IEC 60112

dry/cond.

dry/cond.

Physical/Other properties

Humidity absorption, 2mm 1.3/* % Sim. to ISO 62 Water absorption, 2mm 4.8/* % Sim. to ISO 62 Density 1380/- 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

Additives Flame retardant, Non-halogenated/Red phosphorous free flame retardant

Special characteristics Flame retardant

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