

FRIANYL® B2 H GF30 V0XI NC 1101/2

FRIANYL®

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

Product information

Resin Identification	PA6-GF30 FR(17)	ISO 1043
Part Marking Code	>PA6-GF30 FR(17)<	ISO 11469
Continuous Service Temperature	120 °C	IEC 60216-1

Rheological properties

Moulding shrinkage range, parallel	0.2 - 0.5 %	ISO 294-4, 2577
Moulding shrinkage range, normal	0.5 - 0.8 %	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	12500/-	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	145/-	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2/-	%	ISO 527-1/-2
Flexural modulus	12000/-	MPa	ISO 178
Charpy impact strength, 23°C	47/-	kJ/m ²	ISO 179/1eU
Izod notched impact strength, 23°C	11/-	kJ/m ²	ISO 180/1A
Poisson's ratio	0.33/- ^[C]		
[C]: Calculated			

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	225/*	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	200/*	°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 thickness h	V-0/*	class	IEC 60695-11-10
Thickness tested	0.8/*	mm	IEC 60695-11-10
UL recognition	yes/*		UL 94
Glow Wire Flammability Index, 0.75mm	875/-	°C	IEC 60695-2-12
Glow Wire Flammability Index, 3.0mm	960/-	°C	IEC 60695-2-12
Glow Wire Ignition Temperature, 0.75mm	875/-	°C	IEC 60695-2-13
Glow Wire Ignition Temperature, 3.0mm	850/-	°C	IEC 60695-2-13
FMVSS Class	SE		ISO 3795 (FMVSS 302)

Electrical properties

	dry/cond.		
Comparative tracking index	400/-		IEC 60112

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1/*	%	Sim. to ISO 62
Water absorption, 2mm	3.4/*	%	Sim. to ISO 62
Density	1610/-	kg/m ³	ISO 1183

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Injection

Drying Recommended	yes
Drying Temperature	80 °C
Drying Time, Dehumidified Dryer	2 - 4 h
Processing Moisture Content	≤0.1 %
Melt Temperature Optimum	250 °C
Min. melt temperature	240 °C
Max. melt temperature	260 °C
Screw tangential speed	≤0.2 m/s
Mold Temperature Optimum	80 °C
Min. mould temperature	60 °C
Max. mould temperature	90 °C

Characteristics

Processing	Injection Moulding
Delivery form	Granules
Additives	Flame retardant
Special characteristics	Flame retardant, Heat stabilised or stable to heat