

FRIANYL® B3 V0

FRIANYL®

Designed for any electrical application that require self-extinguishing properties, excellent surface quality and flexibility of use.

Product information

Resin Identification	PA6-FR(30)	ISO 1043
Part Marking Code	>PA6-FR(30)<	ISO 11469

Rheological properties

Moulding shrinkage range, parallel	1.1 - 1.5 %	ISO 294-4, 2577
Moulding shrinkage range, normal	1.1 - 1.5 %	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	3750/-	MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	75/-	MPa	ISO 527-1/-2
Tensile strain at break, 50mm/min	7/-	%	ISO 527-1/-2
Flexural modulus	3150/-	MPa	ISO 178
Flexural strength	200/-	MPa	ISO 178
Charpy impact strength, 23°C	48/-	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	3/-	kJ/m ²	ISO 179/1eA
Ball indentation hardness, H 961/30	140/-	MPa	ISO 2039-1
Poisson's ratio	0.38/- ^[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	70/*	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	180/*	°C	ISO 75-1/-2
Ball pressure test	200/-	°C	IEC 60695-10-2
RTI, electrical, 0.4mm	125	°C	UL 746B
RTI, electrical, 0.75mm	125	°C	UL 746B
RTI, electrical, 1.5mm	125	°C	UL 746B
RTI, electrical, 3.0mm	125	°C	UL 746B
RTI, impact, 0.4mm	90	°C	UL 746B
RTI, impact, 0.75mm	90	°C	UL 746B
RTI, impact, 1.5mm	95	°C	UL 746B
RTI, impact, 3.0mm	95	°C	UL 746B
RTI, strength, 0.4mm	115	°C	UL 746B
RTI, strength, 0.75mm	115	°C	UL 746B
RTI, strength, 1.5mm	115/*	°C	UL 746B
RTI, strength, 3.0mm	115	°C	UL 746B

Flammability

	dry/cond.		
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, 0.4mm	960/-	°C	IEC 60695-2-12
Glow Wire Flammability Index, 3.0mm	960/-	°C	IEC 60695-2-12

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FMVSS Class	SE	ISO 3795 (FMVSS 302)
Hot Wire Ignition, 0.75mm	PLC 4/* s	UL 746A
Hot Wire Ignition, 1.5mm	PLC 3/* s	UL 746A
Hot Wire Ignition, 3mm	PLC 2/* s	UL 746A

Electrical properties

	dry/cond.	
Electric strength	- / 18 kV/mm	IEC 60243-1
High Amperage Arc Ignition Category, 1.5 mm	PLC 0/* class	UL 746A

Physical/Other properties

	dry/cond.	
Humidity absorption, 2mm	2.3/* %	Sim. to ISO 62
Water absorption, 2mm	7.7/* %	Sim. to ISO 62
Density	1160/- 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	245 °C
Min. melt temperature	235 °C
Max. melt temperature	260 °C
Screw tangential speed	≤0.2 m/s
Mold Temperature Optimum	70 °C
Min. mould temperature	60 °C
Max. mould temperature	90 °C

Characteristics

Processing	Injection Moulding
Additives	Flame retardant, Non-halogenated/Red phosphorous free flame retardant
Special characteristics	Flame retardant, Heat stabilised or stable to heat

Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
Stellantis	B62 0300 / 61/214M/C4	01378_20_03230