Celanese
The chemistry inside innovation™

FRIANYL® B3 V2

FRIANYL®

Designed to deliver the best performance in electrical applications like installation equipments accessories, cable glands and similar components.

Product information

Resin Identification	PA6		ISO 1043
Part Marking Code	>PA6<		ISO 11469

Rheological properties

	dry/cond.		
Viscosity number	145 / *	cm^3/g	ISO 307, 1628
Moulding shrinkage range, parallel	1.6 - 2	%	ISO 294-4, 2577
Moulding shrinkage range, normal	1.6 - 2	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	3400 / -	MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	80 / -	MPa	ISO 527-1/-2
Tensile strain at break, 50mm/min	9 / -	%	ISO 527-1/-2
Charpy impact strength, 23°C	50 / -	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, 23°C	4.5 / -	kJ/m^2	ISO 179/1eA
Poisson's ratio	0.37 / -[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	65 / *	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	170 / *	°C	ISO 75-1/-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-2 / *	class	IEC 60695-11-10
Thickness tested	0.4 / *	mm	IEC 60695-11-10
UL recognition	yes / *		UL 94
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 0 / *	s	UL 746A

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Electrical properties

	dry/cond.		
High Amperage Arc Ignition Category, 1.5 mm	PLC 0 / *	class	UL 746A

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	2.5 / *	%	Sim. to ISO 62
Water absorption, 2mm	8.6 / *	%	Sim. to ISO 62
Density	1130 / -	kg/m³	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
Delivery form	Granules
Additives	Non-halogenated/Red phosphorous free flame retardant
Special characteristics	Flame retardant, Heat stabilised or stable to heat