Celanese
The chemistry inside innovation™

FRIANYL® B3 GF20 V2

FRIANYL®

Designed for Electrical applications requiring self-extinguishing properties combined with low warpage, good flowability and excellent surface quality.

Product information

Resin Identification	PA6-GF20FR(30)	ISO 1043
Part Marking Code	>PA6-GF20FR(30)<	ISO 11469

Rheological properties

Moulding shrinkage range, parallel	0.6 - 1	%	ISO 294-4, 2577
Moulding shrinkage range, normal	0.6 - 1	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	5500 / -	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	70 / -	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	3.5 / -	%	ISO 527-1/-2
Charpy impact strength, 23 °C	30 / -	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23 °C	3.5 / -	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23 °C	2.5 / -	kJ/m²	ISO 180/1A
Izod impact strength, 23 °C	25 / -	kJ/m²	ISO 180/1U
Poisson's ratio	0.35 / -[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	125 / *	°C	ISO 75-1/-2

Flammability

	dry/cond.		
Burning Behav. at thickness h	V-2 / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	IEC 60695-11-10
UL recognition	yes / *		UL 94
Glow Wire Flammability Index, 1.0mm	960 / -	°C	IEC 60695-2-12
FMVSS Class	SE		ISO 3795 (FMVSS 302)

Electrical properties

	dry/cond.		
Electric strength	21 / -	kV/mm	IEC 60243-1

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.9 / *	%	Sim. to ISO 62
Water absorption, 2mm	7 / *	%	Sim. to ISO 62
Density	1310 / -	kg/m³	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	245	°C
Min. melt temperature	235	°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, Non-halogenated/Red phosphorous free flame retardant
Special characteristics	Flame retardant, Heat stabilised or stable to heat, High Flow, Low Warpage