

FRIANYL® A3 RV0 Z NC 1102

FRIANYL®

Designed for Electrical applications requiring self-extinguishing properties combined with easy processability and good surface quality, this grade meets the most stringent safety requirements for insulating materials.

Product information

Resin Identification	(PA66+PA6)-FR(30)	ISO 1043
Part Marking Code	>(PA66+PA6)-FR(30)<	ISO 11469

Rheological properties

	dry/cond.		
Viscosity number	125/*	cm ³ /g	ISO 307, 1628
Moulding shrinkage, parallel	1.2/-	%	ISO 294-4, 2577
Moulding shrinkage range, parallel	1 - 1.4	%	ISO 294-4, 2577
Moulding shrinkage, normal	1.2/-	%	ISO 294-4, 2577
Moulding shrinkage range, normal	1 - 1.4	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	3400 / 1150	MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	75 / 40	MPa	ISO 527-1/-2
Tensile strain at break, 50mm/min	6 / >50	%	ISO 527-1/-2
Charpy impact strength, 23°C	>100 / -	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	3 / -	kJ/m ²	ISO 179/1eA
Poisson's ratio	0.37 / - ^[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	70/*	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	180/*	°C	ISO 75-1/-2

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, 0.75mm	960 / -	°C	IEC 60695-2-12
Glow Wire Flammability Index, 3.0mm	960 / -	°C	IEC 60695-2-12
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 1/*	s	UL 746A

Electrical properties

	dry/cond.		
Volume resistivity	>1E13 / -	Ohm.m	IEC 62631-3-1
Comparative tracking index, 100 drops	600		IEC 60112

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Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	2.2/*	%	Sim. to ISO 62
Water absorption, 2mm	7.9/*	%	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	275 °C
Min. melt temperature	265 °C
Max. melt temperature	285 °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	Flame retardant, Non-halogenated/Red phosphorous free flame retardant
Special characteristics	Flame retardant, Heat stabilised or stable to heat, High Flow

Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
VW Group	VW 50133	*Best Fitting Grade To PA66-1-A, Not Officially Approved