Celanese
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FRIANYL® A3 RV0 L NC 1102

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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-FR(30)		ISO 1043
Part Marking Code	>PA66-FR(30)<		ISO 11469
Continuous Service Temperature	130	°C	IEC 60216-1

Rheological properties

	dry/cond.		
Viscosity number	120 / *	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	3600 / 1600	MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	80 / 50	MPa	ISO 527-1/-2
Tensile strain at break, 50mm/min	5 / 40	%	ISO 527-1/-2
Charpy impact strength, 23°C	40 / -	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, 23°C	3 / -	kJ/m^2	ISO 179/1eA
Poisson's ratio	0.36 / -[C]		

[C]: Calculated

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	265 / *	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	80 / *	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	200 / *	°C	ISO 75-1/-2
Ball pressure test	175 / -	°C	IEC 60695-10-2

Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.25 / *	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

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Electrical properties

	dry/cond.		
Volume resistivity	>1E13 / -	Ohm.m	IEC 62631-3-1
Electric strength	23 / -	kV/mm	IEC 60243-1
Comparative tracking index, 100 drops	600		IEC 60112

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	2 / *	%	Sim. to ISO 62
Water absorption, 2mm	7.3 / *	%	Sim. to ISO 62
Density	1160 / -	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	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

Automotive

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

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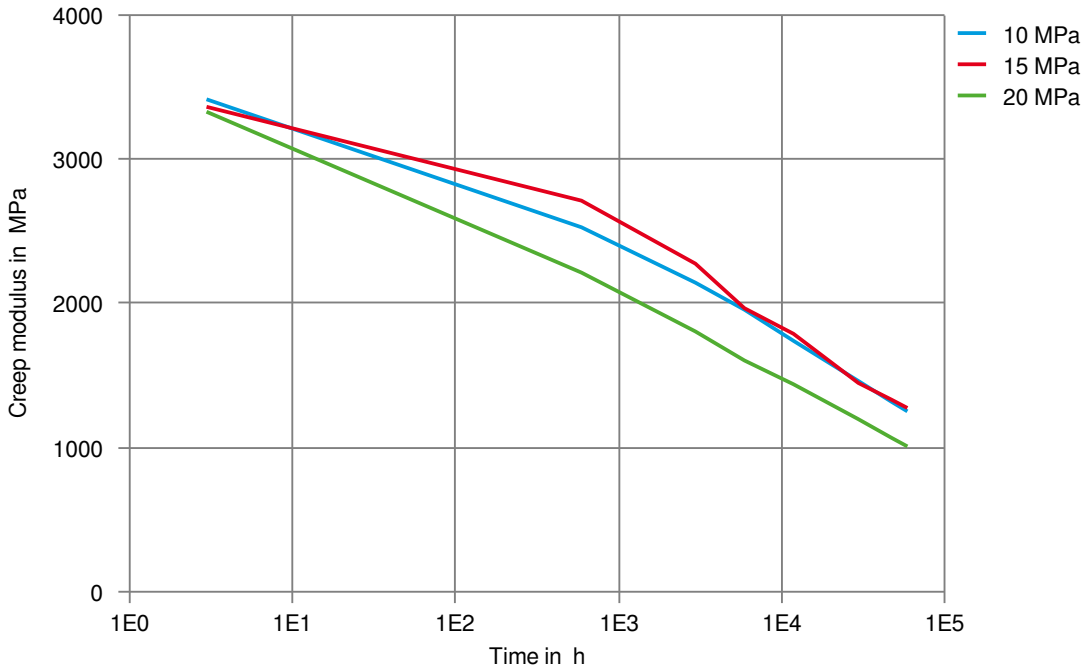
Creep modulus-time 23 °C



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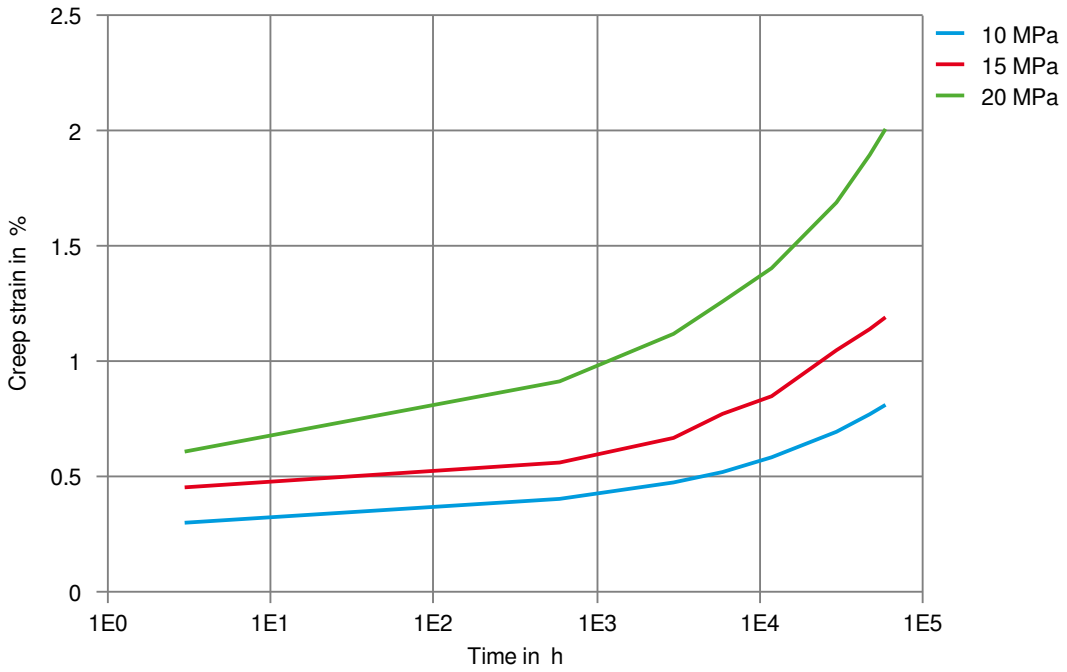
Creep strain-time 23 °C



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