

FRIANYL[®] A3 V0

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 Part Marking Code Continuous Service Temperature	(PA66+PA6) FR(30) >(PA66+PA6) FR(30)< 125 °C		ISO 1043 ISO 11469 IEC 60216-1
Rheological properties	dry/cond.		
Melt volume-flow rate Temperature Load	180/* 275/* 5/*	cm³/10min °C kg	ISO 1133
Viscosity number	135/*	cm ³ /g	ISO 307, 1628
Moulding shrinkage range, parallel	1.3 - 1.7	%	ISO 294-4, 2577
Moulding shrinkage range, normal	1.3 - 1.7	%	ISO 294-4, 2577
Typical mechanical properties	dry/cond.		
Tensile modulus	3400/-	MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	75/-	MPa	ISO 527-1/-2
Tensile strain at break, 50mm/min	10/-	%	ISO 527-1/-2
Charpy impact strength, 23°C	80/-	kJ/m²	ISO 179/1eU
Charpy impact strength, -40°C	97/-	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	3/-	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -40 °C	2.6/-	kJ/m²	ISO 179/1eA
Ball indentation hardness, H 961/30	165/-	MPa	ISO 2039-1
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	85/*	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	185/*	°C	ISO 75-1/-2
Flammability	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	V-0/*	class	IEC 60695-11-10
Thickness tested	1.5/*	mm	IEC 60695-11-10
UL recognition	yes/*		UL 94
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, 3.0mm	960/-	°C	IEC 60695-2-12
Glow Wire Ignition Temperature, 0.75mm	775/-	°C	IEC 60695-2-13



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Electrical properties	dry/cone	d.		
Volume resistivity	1E13/-	Ohm.m	IEC 62631-3-1	
Surface resistivity	*/1E ⁻	3 Ohm	IEC 62631-3-2	
Electric strength	20/-	kV/mm	IEC 60243-1	
Comparative tracking index, 100 drop	s 600		IEC 60112	
Physical/Other properties	dry/cond	ł.		
Humidity absorption, 2mm	1.8/*	%	Sim. to ISO 62	
Water absorption, 2mm	6.9/*	%	Sim. to ISO 62	
Density	1160/-	kg/m³	ISO 1183	
Injection				
Melt Temperature Optimum		275 °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			

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