FRIANYL® A3 RV0 BK 9005/SZ

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 FR(30)		ISO 1043
Part Marking Code	>PA66 FR(30)<		ISO 11469
Continuous Service Temperature	266	°F	IEC 60216-1

Rheological properties

	dry/cond.		
Viscosity number	3740 / *	in³/lb	ISO 307, 1628
Molding shrinkage, parallel	1.2 / -	%	ISO 294-4, 2577
Molding shrinkage range, parallel	1 - 1.4	%	ISO 294-4, 2577
Molding shrinkage, normal	1.2 / -	%	ISO 294-4, 2577
Molding shrinkage range, normal	1 - 1.4	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	493000 / 290000	psi	ISO 527-1/-2
Tensile stress at yield, 50mm/min	10000 / 6500	psi	ISO 527-1/-2
Tensile strain at break, 50mm/min	2.5 / 8	%	ISO 527-1/-2
Flexural modulus	508000 / -	psi	ISO 178
Flexural strength	15800 / -	psi	ISO 178
Charpy impact strength, 23°C	16.6 / >60	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	1.43 / 2.38	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -40°C	1.43 / -	ftlb/in²	ISO 179/1eA

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	509 / *	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	185 / *	°F	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	365 / *	°F	ISO 75-1/-2

Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.0591 / *	in	IEC 60695-11-10
UL recognition	yes / *		UL 94
Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.0157 / *	in	IEC 60695-11-10
UL recognition	yes / *		UL 94
Glow Wire Flammability Index, 0.75mm	1760 / -	°F	IEC 60695-2-12
Glow Wire Flammability Index, 3.0mm	1760 / -	°F	IEC 60695-2-12

Electrical properties

	dry/cond.		
Comparative tracking index	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	0.0419 / -	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	176	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.1	%
Melt Temperature Optimum	527	°F
Min. melt temperature	509	°F
Max. melt temperature	545	°F
Max. screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	158	°F
Min. mold temperature	140	°F
Max. mold temperature	194	°F

Characteristics

Processing	Injection Molding
Additives	Flame retardant, Non-halogenated/Red phosphorus free flame retardant
Special characteristics	Flame retardant, Heat stabilized or stable to heat

Revised: 2026-03-23 Source: Celanese Materials Database

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