FRIANYL® A3 RV0 ECO-B 252 GY 7046/O

FRIANYL®

Designed for Electrical applications requiring self-extinguishing properties meeting the most stringent safety requirements for insulating materials. This grade was developed to offer high flow and improved processability and surface quality.

FRIANYL A3 RV0 ECO-B 252 GY 7046/O incorporates a min. 20% of biobased content derived from waste by weight in the finished product through mass balance allocation. The product is a drop-in replacement to the standard grade with the same performance and processing properties and contributes to the displacement of virgin fossil fuel resources. The biobased source and allocated content in the product are certified according to ISCC PLUS mass balance approach.

Product information

Resin Identification	(PA66+PA6) FR(30)	ISO 1043
Part Marking Code	>(PA66+PA6) FR(30)<	ISO 11469
Continuous Service Temperature	266 °F	IEC 60216-1

Rheological properties

	dry/cond.		
Viscosity number	3320 / *	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	479000 / -	psi	ISO 527-1/-2
Tensile stress at yield, 50mm/min	10000 / -	psi	ISO 527-1/-2
Tensile strain at break, 50mm/min	5 / -	%	ISO 527-1/-2
Charpy impact strength, 23 °C	23.8 / -	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23 °C	1.28 / -	ftlb/in²	ISO 179/1eA

Thermal properties

	dry/cond.		
Melting temperature, 10 °C/min	500 / *	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	176 / *	°F	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	374 / *	°F	ISO 75-1/-2
Ball pressure test	347 / -	°F	IEC 60695-10-2

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	0.0098 / *	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

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Electrical properties

	dry/cond.		
Volume resistivity	1E12 / -	Ohm.m	IEC 62631-3-1
Comparative tracking index	600 / -		IEC 60112

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	2.1 / *	%	Sim. to ISO 62
Water absorption, 2mm	7.4 / *	%	Sim. to ISO 62
Density	0.0419 / -	lb/in³	ISO 1183

Characteristics

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

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

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colorants or other additives may cause significant variations in data values. Properties of molded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Other than those products expressly identified as medical grade (including by MT® product designation or otherwise), Celanese's products are not intended for use in medical or dental implants. Regardless of any such product designation, any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use. To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy and completeness of such information. The information contained in this publication should not be construed as a promise or guarantee of specific properties of our products. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of the materials mentioned in this publication. Moreover, there is a need to reduce human exposure to many materials to the lowest practical limits in view of possible adverse effects. To the extent that any hazards may have been mentioned in this publication, we neither suggest nor guarantee that such hazards are the only ones that exist. We recommend that persons intending to rely on any recommendation or to use any equipment, processing technique or material mentioned in this publication should satisfy themselves that they can meet all applicable safety and health standards. We strongly recommend that users seek and adhere to the manufacturer's current instructions for handling each material they use, and entrust the handling of such material to adequately trained personnel only. Please call the telephone numbers listed for additional technical information. Call Customer Services for the appropriate Materials Safety Data Sheets (MSDS) before attempting to process our products.
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