



FRIANYL® A3 GF30 V0

FRIANYL®

Designed for Electrical applications requiring self-extinguishing properties combined with good mechanical performances, this grade meets the most stringent safety requirements for insulating materials.

Product information

Resin Identification Part Marking Code Continuous Service Temperature	(PA66+PA6)-GF3 >(PA66+PA6)-GF 130	30FR(40)<	ISO 1043 ISO 11469 IEC 60216-1
Rheological properties			
Moulding shrinkage range, parallel Moulding shrinkage range, normal	0.2 - 0.5 0.6 - 0.9		ISO 294-4, 2577 ISO 294-4, 2577
Typical mechanical properties	dry/cond.		
Tensile modulus Tensile stress at break, 5mm/min Tensile strain at break, 5mm/min Flexural modulus Flexural strength Charpy impact strength, 23°C Charpy notched impact strength, 23°C Charpy notched impact strength, -30°C Izod notched impact strength, -30°C Izod impact strength, -30°C Ball indentation hardness, H 961/30 Poisson's ratio [C]: Calculated	10000/6700 140/105 3/5.5 10300/- 250/- 65/- 10/- 9/- 10.0/- 60/- 225/- 0.34/0.35 ^[C]	MPa MPa % MPa MPa kJ/m² kJ/m² kJ/m² kJ/m² kJ/m²	ISO 527-1/-2 ISO 527-1/-2 ISO 527-1/-2 ISO 178 ISO 179/1eU ISO 179/1eA ISO 179/1eA ISO 180/1A ISO 2039-1
Thermal properties	dry/cond.		
Melting temperature, 10 ° C/min Temperature of deflection under load, 1.8 MPa Temperature of deflection under load, 0.45 MPa Ball pressure test RTI, electrical, 0.4mm RTI, electrical, 0.75mm RTI, electrical, 1.5mm RTI, electrical, 3.0mm RTI, impact, 0.75mm RTI, impact, 1.5mm RTI, impact, 1.5mm RTI, strength, 0.75mm RTI, strength, 0.75mm RTI, strength, 1.5mm RTI, strength, 3.0mm	260/* 210/* 235/* 175/- 120 130 130 130 90 90 90 130 130/*	ô ô ô ô ô ô ô ô ô ô ô ô ô ô ô ô ô ô ô	ISO 11357-1/-3 ISO 75-1/-2 ISO 75-1/-2 IEC 60695-10-2 UL 746B UL 746B UL 746B UL 746B UL 746B UL 746B UL 746B UL 746B UL 746B

Printed: 2025-05-29 Page: 1 of 3

Revised: 2025-02-14 Source: Celanese Materials Database





ISO 1183

FRIANYL® A3 GF30 V0

FRIANYL®

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	0.4/*	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
Glow Wire Ignition Temperature, 0.75mm	775/-	°C	IEC 60695-2-13
Glow Wire Ignition Temperature, 3.0mm	800/-	°C	IEC 60695-2-13
FMVSS Class	SE		ISO 3795 (FMVSS 302)
Railway classification	R22/R24		EN 45545-2
Railway classification rating	HL3/HL3		EN 45545-2
Electrical properties	dry/cond.		
Volume resistivity	>1E13/-	Ohm.m	IEC 62631-3-1
Surface resistivity	*/1E13	Ohm	IEC 62631-3-2
Electric strength	46/-	kV/mm	IEC 60243-1
Comparative tracking index, 100 drops	600		IEC 60112
Physical/Other properties	dry/cond.		
Humidity absorption, 2mm	1.3/*	%	Sim. to ISO 62
Water absorption, 2mm	4.5/*	%	Sim. to ISO 62

1410/-

kg/m³

Injection

Density

Drying Recommended	yes	
Drying Temperature	80	°C
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.1	%
Melt Temperature Optimum	285	°C
Min. melt temperature	270	°C
Max. melt temperature	300	°C
Screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	80	°C
Min. mould temperature	60	°C
Max. mould temperature	100	°C
Ejection temperature	208	°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

Printed: 2025-05-29 Page: 2 of 3

Revised: 2025-02-14 Source: Celanese Materials Database





FRIANYL® A3 GF30 V0

FRIANYL®

Automotive

OEM STANDARD ADDITIONAL INFORMATION

Renault UB22a, No Spec, Special Part Approval, See

Your CE Account Manager.

Renault UB22b, No Spec, Special Part Approval, See

Your CE Account Manager.

Renault UB22c, No Spec, Special Part Approval, See

Your CE Account Manager.

Renault UB22d, No Spec, Special Part Approval, See

Your CE Account Manager.

VW Group VW 50133

*Best Fitting Grade To PA66-6-A, Not Officially

Approved

Printed: 2025-05-29 Page: 3 of 3

Revised: 2025-02-14 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. Colourants or other additives may cause significant variations in data values. Properties of moulded 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 e

© 2025 Celanese or its affiliates. All rights reserved. Celanese®, registered C-ball design and all other trademarks identified herein with ®, TM, SM, unless otherwise noted, are trademarks of Celanese or its affiliates. Fortron is a registered trademark of Fortron Industries LLC.