



FRIANYL® C3 H V0

FRIANYL®

Designed for Electrical applications requiring self-extinguishing properties combined with easy processability and excellent surface quality, this grade meets the most stringent safety requirements for insulating materials.

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Resin Identification	PA666-FR(30)		ISO 1043
Part Marking Code	>PA666-FR(30)<		ISO 11469
Continuous Service Temperature	110		IEC 60216-1
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Rheological properties			
Moulding shrinkage range, parallel	1.1 - 1.5	%	ISO 294-4, 2577
Moulding shrinkage range, normal	1.1 - 1.5	%	ISO 294-4, 2577
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Typical mechanical properties	dry/cond.		
Tensile modulus	3300/-	MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	70/-	MPa	ISO 527-1/-2
Tensile strain at break, 50mm/min	10/-	%	ISO 527-1/-2
Flexural modulus	3000/-	MPa	ISO 178
Flexural strength	110/-	MPa	ISO 178
Charpy impact strength, 23°C	60/-	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30 °C	50/-	kJ/m²	ISO 179/1eU
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Charpy notched impact strength, 23°C	3/-	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	2.5/-	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	3.5/-	kJ/m²	ISO 180/1A
Poisson's ratio	0.37/- ^[C]		
[C]: Calculated			
Thermal properties	dry/cond.		
			100 44057 440
Melting temperature, 10°C/min	255/*	°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
Flammability	dry/cond.		
•		-1	IEC 0000E 11 10
Burning Behav. at 1.5mm nom. thickn.	V-0/*	class	IEC 60695-11-10
Thickness tested	1.6/*	mm	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
FMVSS Class	SE		ISO 3795 (FMVSS 302)
Electrical properties	dry/cond.		
Volume resistivity	1E13/-	Ohm.m	IEC 62631-3-1
Surface resistivity	*/1E13	Ohm	IEC 62631-3-2
Electric strength	18/-	kV/mm	IEC 60243-1
Comparative tracking index	600/-		IEC 60112
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Revised: 2025-02-14 Source: Celanese Materials Database





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Physical/Other properties

dry/cond.

Injection

yes	
80	°C
2 - 4	h
≤0.1	%
270	°C
260	°C
290	°C
≤0.2	m/s
70	°C
60	°C
90	°C
	80 2 - 4 ≤0.1 270 260 290 ≤0.2 70 60

Characteristics

Processing Injection Moulding

Additives Flame retardant, Non-halogenated/Red phosphorous free flame retardant

Special characteristics Flame retardant, Heat stabilised or stable to heat

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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 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, pr

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