

# CELANYL® 70G30HHC BLK2 (PRELIMINARY)

## CELANYL®

Common features of CELANYL® nylon resin include mechanical and physical properties such as high mechanical strength, excellent balance of stiffness and toughness, good high temperature performance, good electrical and flammability properties, good abrasion and chemical resistance. In addition, CELANYL® nylon resins are available in different modified and reinforced grades to create a wide range of products with tailored properties for specific processes and end-uses. CELANYL® nylon resin, including most flame retardant grades, offer the ability to be coloured.

The good melt stability of CELANYL® nylon resin normally enables the recycling of properly handled production waste. If recycling is not possible, we recommend, as the preferred option, incineration with energy recovery (-31kJ/g of base polymer) in appropriately equipped installations. For disposal, local regulations have to be observed.

CELANYL® nylon resin typically is used in demanding applications in the automotive, furniture, domestic appliances, sporting goods and construction industry.

CELANYL® 70G30HHC BLK2 is a 30% glass fiber reinforced, heat stabilized, polyamide 66 resin for injection molding combined with good laser marking performance.

### Product information

Resin Identification	PA66-GF30	ISO 1043
Part Marking Code	>PA66-GF30<	ISO 11469
ISO designation	ISO 16396-PA66,GF30,M1CGHRW,S14-100	

### Rheological properties

	dry/cond.		
Moulding shrinkage, parallel	0.3/-	%	ISO 294-4, 2577
Moulding shrinkage, normal	1.0/-	%	ISO 294-4, 2577
Melt viscosity, @ 1000 sec-1, 280°C	190/*	Pa.s	ISO 11443

### Typical mechanical properties

	dry/cond.		
Tensile modulus	10000/7000	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	190/125	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	3/5	%	ISO 527-1/-2
Flexural modulus	9900/7000	MPa	ISO 178
Flexural strength	280/200	MPa	ISO 178
Charpy impact strength, 23°C	70/-	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	70/-	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, 23°C	12/-	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	10/-	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength, 23°C	10/-	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength, -30°C	10.0/-	kJ/m <sup>2</sup>	ISO 180/1A
Poisson's ratio	0.34/-		

### Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	262/*	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	75/-	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	247/*	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	258/*	°C	ISO 75-1/-2
Thermal conductivity, flow	0.36	W/(m K)	ISO 22007-2
Thermal conductivity of melt	0.21	W/(m K)	ISO 22007-2

# CELANYL® 70G30HHC BLK2 (PRELIMINARY)

## CELANYL®

TGA curve	available		ISO 11359-1/-2
<b>Flammability</b>			
	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	HB/*	class	IEC 60695-11-10
Thickness tested	1.5/*	mm	IEC 60695-11-10
Burning Behav. at thickness h	HB/*	class	IEC 60695-11-10
Thickness tested	0.75/*	mm	IEC 60695-11-10
Oxygen index	24/*	%	ISO 4589-1/-2
FMVSS Class	B		ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	37	mm/min	ISO 3795 (FMVSS 302)
<b>Electrical properties</b>			
	dry/cond.		
Comparative tracking index	350/-		IEC 60112
<b>Physical/Other properties</b>			
	dry/cond.		
Humidity absorption, 2mm	1.9/*	%	Sim. to ISO 62
Water absorption, 2mm	6/*	%	Sim. to ISO 62
Water absorption, Immersion 24h	1.3/*	%	Sim. to ISO 62
Density	1370/-	kg/m <sup>3</sup>	ISO 1183
<b>VDA Properties</b>			
Odour	3.5 class		VDA 270
<b>Injection</b>			
Drying Recommended	yes		
Drying Temperature	80 °C		
Drying Time, Dehumidified Dryer	2 - 4 h		
Processing Moisture Content	≤0.2 %		
Melt Temperature Optimum	295 °C		
Min. melt temperature	285 °C		
Max. melt temperature	305 °C		
Screw tangential speed	≤0.2 m/s		
Mold Temperature Optimum	100 °C		
Min. mould temperature	70 °C		
Max. mould temperature	120 °C		
Hold pressure range	50 - 100 MPa		
Hold pressure time	3 s/mm		
Ejection temperature	210 °C		

## Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Additives	Release agent
Special characteristics	Heat stabilised or stable to heat, Hydrolysis resistant

# CELANYL® 70G30HHC BLK2 (PRELIMINARY)

## CELANYL®

### Automotive

OEM  
VW Group

STANDARD  
VW 50133 PA66-6-A

The above data are preliminary and are subject to change as additional data are developed on subsequent lots.

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 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.

© 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.