(+) 18816996168 Ponciplastics.com



Zytel® FGFE5171 NC010C

NYLON RESIN

Zytel® FGFE5171 NC010C is a 33% glass filled nylon 66 resin. It has been developed for consideration into applications such as parts for the food industry.

FOOD CONTACT

This product is manufactured according to Good Manufacturing Practice (GMP) principles and generally accepted in food contact applications in Europe and the USA when meeting applicable use conditions. For details, individual compliance statements are available from our representative.

Product information

Resin Identification Part Marking Code ISO designation	PA66-GF33 >PA66-GF33< ISO 16396-PA66,GF33,M1GN,S14-100		ISO 1043 ISO 11469
Rheological properties	dry/cond.		
Moulding shrinkage, parallel	0.3/-	%	ISO 294-4, 2577
Moulding shrinkage, normal	0.9/-	%	ISO 294-4, 2577
Typical mechanical properties	dry/cond.		
Tensile modulus	10500/-	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	200/-	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	3.5/-	%	ISO 527-1/-2
Flexural modulus	9300/-	MPa	ISO 178
Flexural strength	290/-	MPa	ISO 178
Charpy notched impact strength, 23°C	10/-	kJ/m²	ISO 179/1eA
Poisson's ratio	0.34/-		
Thermal properties	dry/cond.		
Melting temperature, 10°C/min	263/*	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	70/20	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	252/*	°C	ISO 75-1/-2
RTI, electrical, 0.75mm	130	°C	UL 746B
RTI, electrical, 1.5mm	130	°C	UL 746B
RTI, electrical, 3.0mm	130	°C	UL 746B
RTI, impact, 0.75mm	120	°C	UL 746B
RTI, impact, 1.5mm	120	°C	UL 746B
RTI, impact, 3.0mm	120	°C	UL 746B
RTI, strength, 0.75mm	130	°C	UL 746B
RTI, strength, 1.5mm	130/*	°C	UL 746B
RTI, strength, 3.0mm	130	°C	UL 746B
Flammability	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	HB/*	class	IEC 60695-11-10
Thickness tested	1.5/*	mm	IEC 60695-11-10
UL recognition	yes/*		UL 94
Burning Behav. at thickness h	HB/*	class	IEC 60695-11-10
Thickness tested	0.71/*	mm	IEC 60695-11-10
UL recognition	yes/*		UL 94

Printed: 2025-05-29 Page: 1 of 2

Revised: 2025-05-07 Source: Celanese Materials Database





Zytel® FGFE5171 NC010C

NYLON RESIN

FMVSS Class B ISO 3795 (FMVSS 302) Burning rate, Thickness 1 mm <80 mm/min ISO 3795 (FMVSS 302)

dry/cond.

Physical/Other properties

Density 1390/- kg/m³

ISO 1183

Injection

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

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

Revised: 2025-05-07 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 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

© 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.