CELANYL® A3 H J20 NC 1102/T/01

CELANYL®

Toughened grade for outstanding impact resistance over a wide temperature range.

Product information

Resin Identification	PA66-I		ISO 1043
Part Marking Code	>PA66-I<		ISO 11469
Continuous Service Temperature	248	°F	IEC 60216-1

Rheological properties

	dry/cond.		
Viscosity number	4010 / *	in³/lb	ISO 307, 1628
Molding shrinkage range, parallel	1.6 - 2	%	ISO 294-4, 2577
Molding shrinkage range, normal	1.6 - 2	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	272000 / -	psi	ISO 527-1/-2
Tensile stress at yield, 50mm/min	7000 / -	psi	ISO 527-1/-2
Tensile strain at break, 50mm/min	75 / -	%	ISO 527-1/-2
Charpy notched impact strength, 23°C	30.9 / -	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -30°C	11.4 / -	ftlb/in²	ISO 179/1eA
Ball indentation hardness, H 961/30	14500 / -	psi	ISO 2039-1

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	509 / *	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	167 / *	°F	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	320 / *	°F	ISO 75-1/-2

Flammability

FMVSS Class	B		ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	1.22	in/min	ISO 3795 (FMVSS 302)

Electrical properties

	dry/cond.		
Volume resistivity	1E13 / -	Ohm.m	IEC 62631-3-1
Comparative tracking index	600 / -		IEC 60112

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.7 / *	%	Sim. to ISO 62
Water absorption, 2mm	7 / *	%	Sim. to ISO 62
Density	0.0386 / -	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	176	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.15	%
Melt Temperature Optimum	554	°F
Min. melt temperature	536	°F
Max. melt temperature	572	°F

Revised: 2026-08-12 Source: Celanese Materials Database

CELANYL® A3 H J20 NC 1102/T/01

CELANYL®

Max. screw tangential speed	≤0.3	m/s
Mold Temperature Optimum	176	°F
Min. mold temperature	122	°F
Max. mold temperature	212	°F

Characteristics

Processing	Injection Molding
Special characteristics	High impact or impact modified, Heat stabilized or stable to heat

Revised: 2026-08-12 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.
Copyright © 2026 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.