

Injection molding grade; reinforced with ca. 10 % glass fibers

Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- POM-K, M-GNR, 02-003, GF10 POM copolymer Injection molding type, reinforced with ca. 10 % glass fibers; high resistance to thermal and oxidative degradation; reduced thermal expansion and shrinkage. UL-registration in natural and black and a thickness more than 1.5 mm as UL 94 HB, temperature index UL 746 B, electrical 105 °C, mechanical 105 °C Burning rate ISO 3795 and FMVSS 302 < 100 mm/min for a thickness more than 1 mm. Ranges of applications: For molded parts with high strength and rigidity as well as higher hardness. FMVSS = Federal Motor Vehicle Safety Standard (USA) UL = Underwriters Laboratories (USA)

Product information

Part Marking Code	POM		ISO 11469
Rheological properties			
Melt volume-flow rate Temperature Load	190	-	ISO 1133
Moulding shrinkage, parallel Moulding shrinkage, normal	2.16 1.4 1.1	%	ISO 294-4, 2577 ISO 294-4, 2577
Typical mechanical properties			
Tensile Modulus Stress at break, 5mm/min Strain at break, 5mm/min Flexural Modulus Flexural Strength Tensile creep modulus, 1h Tensile creep modulus, 1000h Charpy impact strength, 23°C Charpy impact strength, -30°C Charpy notched impact strength, -30°C Ball indentation hardness, H 358/30 Poisson's ratio	4 4500 130 3700 2500 40 50 6.5 6.5	MPa % MPa MPa MPa	ISO 527-1/-2 ISO 527-1/-2 ISO 527-1/-2 ISO 178 ISO 899-1 ISO 899-1 ISO 179/1eU ISO 179/1eU ISO 179/1eA ISO 179/1eA ISO 2039-1
Thermal properties			
Melting temperature, 10°C/min Temp. of deflection under load, 1.8 MPa Temp. of deflection under load, 8 MPa Vicat softening temperature, 50°C/h, 50N Coeff. of linear therm. expansion, parallel Coeff. of linear therm. expansion, normal	156 80	°C °C	ISO 11357-1/-3 ISO 75-1/-2 ISO 75-1/-2 ISO 306 ISO 11359-1/-2 ISO 11359-1/-2



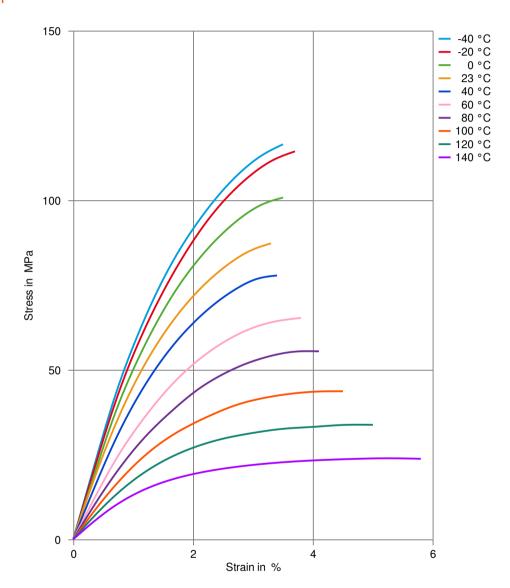
Flammability				
Burning Behav. at 1.5mm nom. thickr	ı. HB	class	UL 94	
Thickness tested		mm	UL 94	
Burning Behav. at thickness h		class	UL 94	
Thickness tested		mm	UL 94	
UL recognition	yes		UL 94	
Electrical properties				
Relative permittivity, 100Hz	4.1		IEC 62631-2-1	
Relative permittivity, 1MHz	4.1		IEC 62631-2-1	
Dissipation factor, 100Hz	30	E-4	IEC 62631-2-1	
Dissipation factor, 1MHz	60	E-4	IEC 62631-2-1	
Volume resistivity		Ohm.m	IEC 62631-3-1	
Surface resistivity	1E14	Ohm	IEC 62631-3-2	
Electric strength		kV/mm	IEC 60243-1	
Comparative tracking index	PLC 0	PLC	UL 746A	
Other properties				
Humidity absorption, 2mm	0.19	%	Sim. to ISO 62	
Water absorption, 2mm	0.85	%	Sim. to ISO 62	
Density	1480	kg/m³	ISO 1183	
Injection				
Drying Temperature	100 - 120	°C		
Drying Time, Dehumidified Dryer	3 - 4			
Processing Moisture Content	0.15			
Screw tangential speed	0.2 - 0.21	m/s		
Max. mould temperature	80 - 120	°C		
Back pressure	2	MPa		
Injection speed	slow			
Characteristics				
Additives	Release agent			
Additional information				
			5)	
Injection molding	Standard injection moulding machines with three phase (15 to 25 D)			

Injection molding

Standard injection moulding machines with three phase (15 to 25 D) plasticating screws will fit.

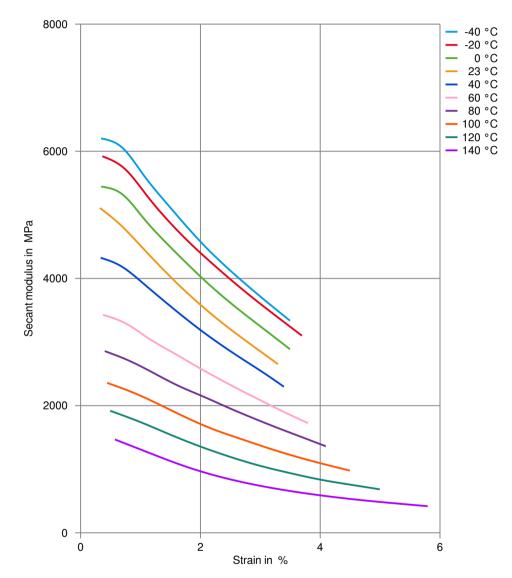


Stress-strain



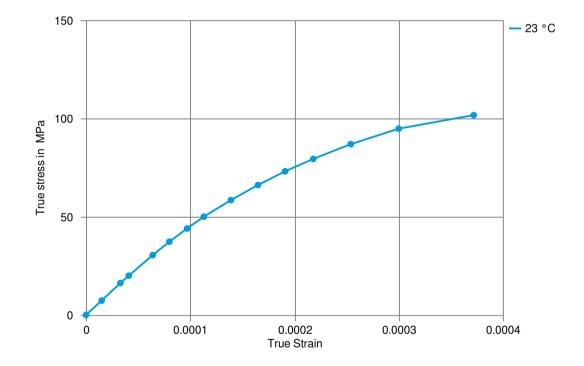


Secant modulus-strain





True stress-strain





Bosch

Stellantis - Chrysler

Processing Texts Pre-drying	Drying is not normally required. If material has come in contact with moisture through improper storage or handling or through regrind use, drying may be necessary to prevent splay and odor problems.			
Longer pre-drying times/storage	The product can then be stored in standard conditions until processed. Standard injection moulding machines with three phase (15 to 25 D)			
Injection molding Preprocessing	plasticating screws will fit. General drying is not necessary due to low moisture absorption of			
	the resin. In case of bad storage conditions (water contact or condensed water) the use of a recirculating air dryer (100 to 120 °C / max. 40 mm layer / 3 to 6 hours) is recommended.			
	Max. Water content 0,2 %			
Injection molding Postprocessing Other Approvals	Conditioning e.g. moisturizing is not necessary.			
Other Approvals	OEM	Specification	Additional Information	

N28 BN22-X006

CPN 5090

Printed: 2023-08-07

Revised: 2023-07-28 Source: Celanese Materials Database

Page: 6 of 6

Natural & Black

Black

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 not intended for use in medical or dental implants. Regardless of any such product 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 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 the lowest that texist. 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 m

© 2023 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. KEPITAL is a registered trademark of Korea Engineering Plastics Company, Ltd.