

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)

Rheological properties

r moological properties			
Melt volume-flow rate	6	cm ³ /10min	ISO 1133
Temperature	190	°C	
Load	2.16	kg	
Moulding shrinkage, parallel	1.4	%	ISO 294-4, 2577
Moulding shrinkage, normal	1.1	%	ISO 294-4, 2577
Typical mechanical properties			
Tensile Modulus	4800	MPa	ISO 527-1/-2
Stress at break, 5mm/min	90	MPa	ISO 527-1/-2
Strain at break, 5mm/min	4	%	ISO 527-1/-2
Flexural Modulus	4500	MPa	ISO 178
Flexural Strength	130	MPa	ISO 178
Tensile creep modulus, 1h	3700	MPa	ISO 899-1
Tensile creep modulus, 1000h	2500	MPa	ISO 899-1
Charpy impact strength, 23°C	40	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	50	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	6.5	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	6.5	kJ/m²	ISO 179/1eA
Ball indentation hardness, H 358/30	170	MPa	ISO 2039-1
Poisson's ratio	0.434		
Thermal properties			
Melting temperature, 10 ° C/min	166	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	154	°C	ISO 75-1/-2
Temp. of deflection under load, 8 MPa	64	°C	ISO 75-1/-2
Flammability			
Burning Behav. at 1.5mm nom. thickn.	HB	class	UL 94
Thickness tested		mm	UL 94
Burning Behav. at thickness h		class	UL 94
Thickness tested	3.00		UL 94
UL recognition	yes		UL 94
č	,		



Electrical properties

Relative permittivity, 100Hz	4.1	I	EC 62631-2-1
Relative permittivity, 1MHz	4.1	I	EC 62631-2-1
Dissipation factor, 100Hz	30	E-4 I	EC 62631-2-1
Dissipation factor, 1MHz	60	E-4 I	EC 62631-2-1
Volume resistivity	1E12	Ohm.m I	EC 62631-3-1
Surface resistivity	1E14	Ohm I	EC 62631-3-2
Electric strength	35	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	0.13		
Max. mould temperature	80 - 120		
•		0	
Injection speed	slow		
Characteristics			
Additives	Belease agent		

Additives

Release agent

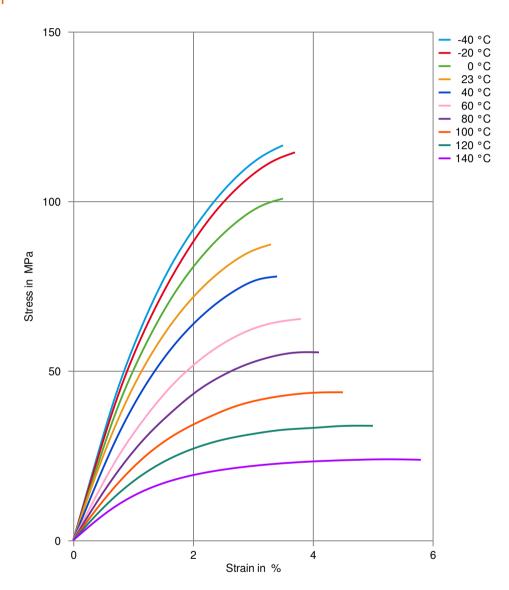
Additional information

Injection molding

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

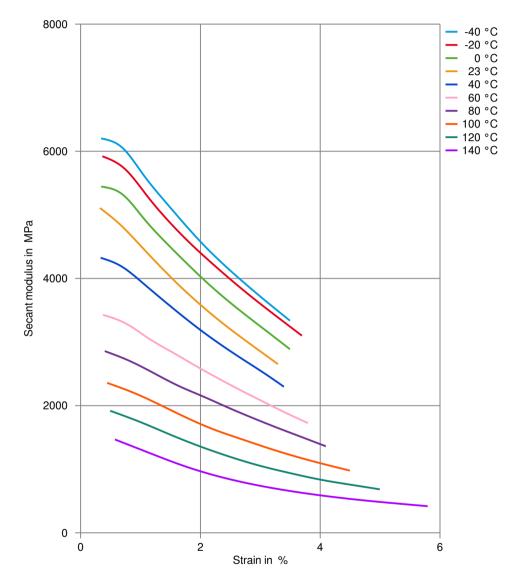


Stress-strain



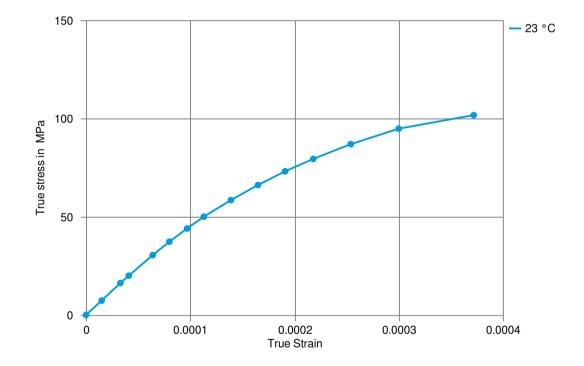


Secant modulus-strain





True stress-strain





Bosch

Stellantis - Chrysler

	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) 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	Conditioning e.g. moisturizing is not necessary.				
Other Approvals					
Other Approvals	OEM	Specification	Additional Information		

N28 BN22-X006

CPN 5090

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Natural & Black

Black

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