

#### Injection molding grade; reinforced with ca. 20 % glass spheres

Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- POM-K, M-GNR, 03-002, GB20 POM copolymer Injection molding type, reinforced with ca. 20 % glass spheres; high resistance to thermal and oxidative degradation. UL-registration in natural and a thickness more than 0.81 mm, in black and a thickness more than 1.5 mm as UL94 HB, temperature index UL 746 B for a thickness of 3 mm, electrical 105 °C, mechanical 95 °C (tensile impact) and 100 °C (tensile). Burning rate ISO 3795 and FMVSS 302 < 100 mm/min for a thickness more than 1 mm. Ranges of applications: For low-warpage molded parts with higher rigidity and 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	8.5	cm <sup>3</sup> /10min	ISO 1133
Temperature	190	°C	
Load	2.16	kg	
Moulding shrinkage, parallel	1.9	%	ISO 294-4, 2577
Moulding shrinkage, normal	1.6	%	ISO 294-4, 2577
Typical mechanical properties			
Tensile Modulus	3400	MPa	ISO 527-1/-2
Yield stress, 50mm/min	46	MPa	ISO 527-1/-2
Yield strain, 50mm/min	6.5	%	ISO 527-1/-2
Nominal strain at break	15	%	ISO 527-1/-2
Flexural Modulus	3200	MPa	ISO 178
Compressive stress at 1% strain	26	MPa	ISO 604
Tensile creep modulus, 1h	3000	MPa	ISO 899-1
Tensile creep modulus, 1000h		MPa	ISO 899-1
Charpy impact strength, 23°C		kJ/m²	ISO 179/1eU
Charpy impact strength, -30 °C		kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C		kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C		kJ/m²	ISO 179/1eA
Ball indentation hardness, H 358/30	164	MPa	ISO 2039-1
Thermal properties			
Melting temperature, 10°C/min	166	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	110	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h, 50N	151	°C	ISO 306
Coeff. of linear therm. expansion, parallel	100	E-6/K	ISO 11359-1/-2



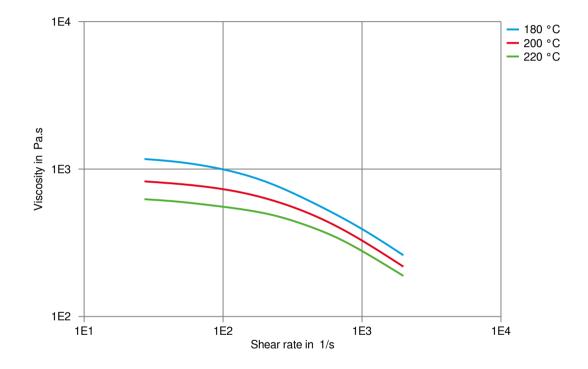
Flammability				
Burning Behav. at 1.5mm nom. thickr	n. HB	class	UL 94	
Thickness tested		mm	UL 94	
Burning Behav. at thickness h		class	UL 94	
Thickness tested	0.81	mm	UL 94	
UL recognition	yes		UL 94	
Electrical properties				
Relative permittivity, 100Hz	4.5		IEC 62631-2-1	
Relative permittivity, 1MHz	4.2		IEC 62631-2-1	
Dissipation factor, 100Hz	200	E-4	IEC 62631-2-1	
Dissipation factor, 1MHz	70	E-4	IEC 62631-2-1	
Volume resistivity	1E12	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	0.15	%	Sim. to ISO 62	
Water absorption, 2mm	0.8		Sim. to ISO 62	
Density		kg/m <sup>3</sup>	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			
Max. mould temperature	80 - 120	°C		
Back pressure	2	MPa		
Injection speed	slow			
Characteristics				
Additives	Release agent			
Additional information				
Auditional information				
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.

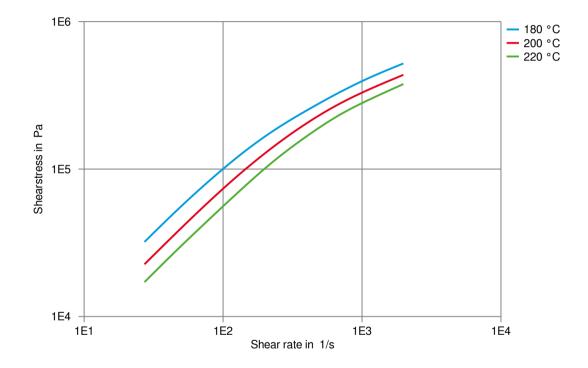


Viscosity-shear rate



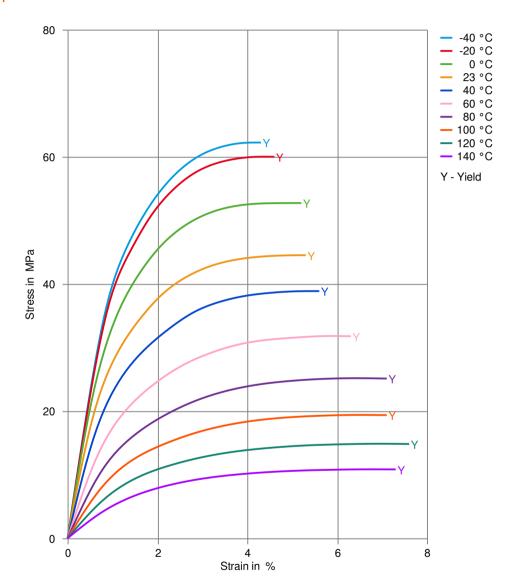


Shearstress-shear rate





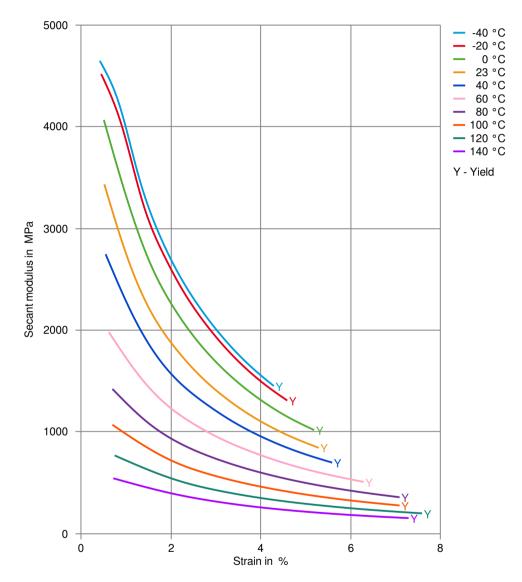
Stress-strain





# HOSTAFORM® C 9021 GV3/20

### Secant modulus-strain





Toyota

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.				
Injection molding	Standard injection moulding machines with three phase (15 to 25 D) plasticating screws will fit.				
Injection molding Preprocessing	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		
	Bosch	N28 BN22-X014	Natural & Black		
	Continental	TST N 055 54.15			

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