

Injection molding grade with high flow; with 30 % glass spheres reinforced

Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- POM-K, M-GNR, 05-002, GB30 POM copolymer With 30 % glass spheres reinforced, very easy flowing injection molding type; low-warpage; high resistance to thermal and oxidative degradation. Burning rate ISO 3795 and FMVSS 302 < 100 mm/min for a thickness more than 1 mm. Ranges of applications: low-warpage and dimensionally stable molded parts with higher rigidity and hardness. FMVSS = Federal Motor Vehicle Safety Standard (USA)

Product information			
Part Marking Code	POM		ISO 11469
Rheological properties			
Melt volume-flow rate	16	cm ³ /10min	ISO 1133
Temperature	190	-	
Load	2.16	kg	
Typical mechanical properties			
Tensile Modulus	3800	MPa	ISO 527-1/-2
Yield stress, 50mm/min	38	MPa	ISO 527-1/-2
Yield strain, 50mm/min		%	ISO 527-1/-2
Nominal strain at break		%	ISO 527-1/-2
Flexural Modulus		MPa	ISO 178
Tensile creep modulus, 1h		MPa	ISO 899-1
Tensile creep modulus, 1000h		MPa	ISO 899-1
Charpy impact strength, 23°C		kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C		kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C		kJ/m² kJ/m²	ISO 179/1eA ISO 179/1eA
Charpy notched impact strength, -30°C Ball indentation hardness, H 358/30		MPa	ISO 179/16A ISO 2039-1
Dair indentation nardness, in 550/50	107	ivii a	130 2039-1
Thermal properties			
Melting temperature, 10°C/min	166		ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	112		ISO 75-1/-2
Vicat softening temperature, 50°C/h, 50N	151		ISO 306
Coeff. of linear therm. expansion, parallel	80	E-6/K	ISO 11359-1/-2
Electrical properties			
Relative permittivity, 100Hz	5		IEC 62631-2-1
Relative permittivity, 1MHz	4.5		IEC 62631-2-1
Dissipation factor, 100Hz	300	E-4	IEC 62631-2-1
Dissipation factor, 1MHz		E-4	IEC 62631-2-1
Volume resistivity		Ohm.m	IEC 62631-3-1
Surface resistivity		Ohm	IEC 62631-3-2
Electric strength	40	kV/mm	IEC 60243-1



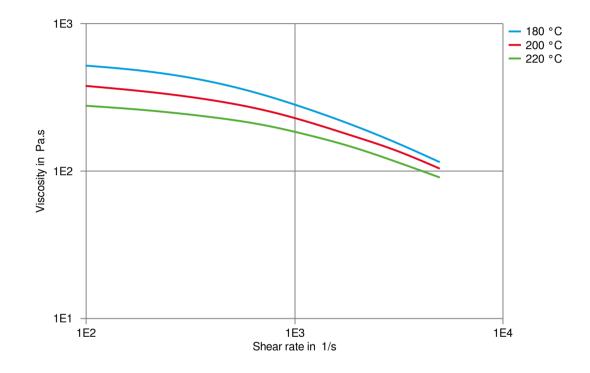
Comparative tracking index		PLC 0	PLC	UL 746A
Other properties				
Humidity absorption, 2mm Water absorption, 2mm		0.12 0.9		Sim. to ISO 62 Sim. to ISO 62
Density			kg/m³	ISO 1183
Injection				
Drying Temperature		100 - 120	°C	
Drying Time, Dehumidified Dryer		3 - 4	h	
Processing Moisture Content		0.15	%	
Screw tangential speed		0.2 - 0.21		
Max. mould temperature		80 - 120		
Back pressure			MPa	
Injection speed		slow		
Characteristics				
Additives	Release agent			
Additional information				

Injection molding

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

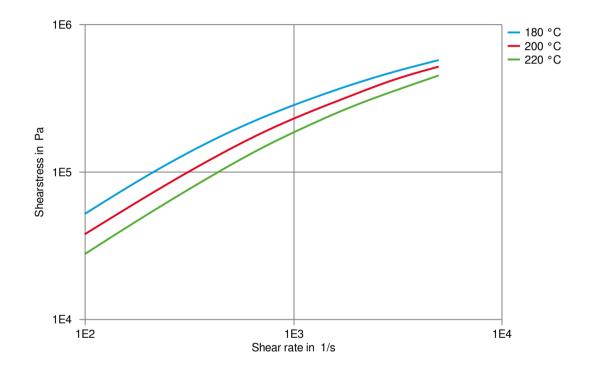


Viscosity-shear rate



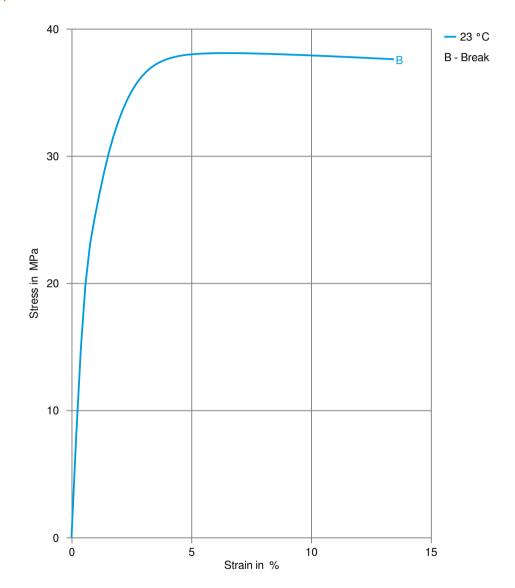


Shearstress-shear rate



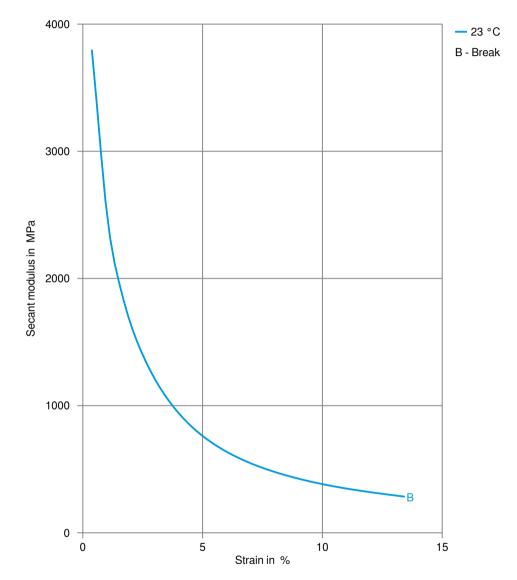


Stress-strain



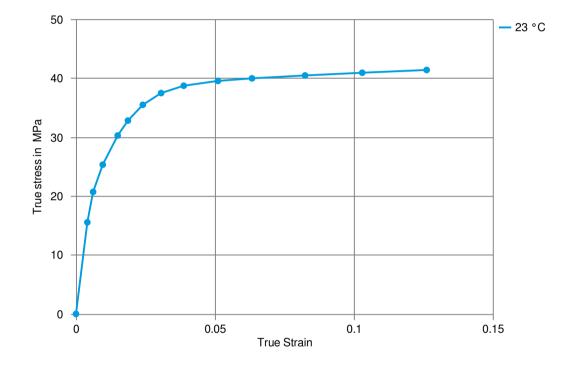


Secant modulus-strain





True stress-strain





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		
	Continental	TST N 055 54.16		

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