

Hostaform® C 9021 GV1/30

Acetal (POM) Copolymer

Celanese Corporation

Message:

Chemical abbreviation according to ISO 1043-1: POM

Molding compound ISO 9988- POM-K, M-GNR, 02-003, GF26

POM copolymer

Injection molding type, reinforced with ca 26 % glass fibers; high resistance to thermal and oxidative degradation; reduced thermal expansion and shrinkage.

UL-registration for all colours and a thickness more than 1.57 mm as

UL 94 HB, temperature index UL 746 B electrical 105°C, mechanical

95°C (tensile impact) and 100°C (tensile).

Burning rate ISO 3795 and FMVSS 302 < 100 mm/min and a thickness more than 1 mm thickness.

Ranges of applications: For molded parts with very high strength and rigidity as well as higher hardness.

FMVSS = Federal Motor Vehicle Safety Standard (USA)

UL = Underwriters Laboratories (USA)

General Information			
UL YellowCard	E42337-234614		
Filler / Reinforcement	Glass fiber reinforced material, 26% filler by weight		
Features	Rigidity, high		
	High strength		
	High hardness		
RoHS Compliance	Contact manufacturer		
Processing Method	Injection molding		
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1)		
	Shear Modulus vs. Temperature (ISO 11403-1)		
	Shear Stress vs. Shear Rate (ISO 11403-1)		
Resin ID (ISO 1043)	POM		
Physical	Nominal Value	Unit	Test Method
Density	1.60	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	4.00	cm ³ /10min	ISO 1133
Water Absorption (Saturation, 23°C)	0.90	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	9200	MPa	ISO 527-2/1A/1
Tensile Stress (Break)	135	MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.5	%	ISO 527-2/1A/5
Tensile Creep Modulus			ISO 899-1
1 hr	7700	MPa	ISO 899-1

1000 hr	5400	MPa	ISO 899-1
Flexural Modulus (23°C)	7800	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	8.0	kJ/m ²	ISO 179/1eA
23°C	8.0	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	35	kJ/m ²	ISO 179/1eU
23°C	30	kJ/m ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
1.8 MPa, not annealed	160	°C	ISO 75-2/A
8.0 MPa, not annealed	125	°C	ISO 75-2/C
Melting Temperature ¹	166	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow	4.0E-5	cm/cm/°C	ISO 11359-2
Lateral	8.0E-5	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+14	ohms	IEC 60093
Volume Resistivity	1.0E+14	ohms·cm	IEC 60093
Dielectric Strength	40	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	4.30		IEC 60250
1 MHz	4.30		IEC 60250
Dissipation Factor			IEC 60250
100 Hz	3.0E-3		IEC 60250
1 MHz	6.0E-3		IEC 60250
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.57 mm	HB		UL 94
3.18 mm	HB		UL 94
Fill Analysis	Nominal Value	Unit	Test Method
Density of Melt	1.350	g/cm ³	Internal method
Ejection Temperature	164	°C	Internal method
Specific Heat Capacity of Melt	1810	J/kg/°C	Internal method
Thermal Conductivity of Melt	0.22	W/m/K	Internal method
Effective Thermal Diffusivity	0.0651	cSt	Internal method
Injection	Nominal Value	Unit	
Drying Temperature	100 - 120	°C	
Drying Time	3.0 - 4.0	hr	
Suggested Max Moisture	0.15	%	

Hopper Temperature	20.0 - 30.0	°C
Rear Temperature	170 - 180	°C
Middle Temperature	180 - 190	°C
Front Temperature	190 - 200	°C
Nozzle Temperature	190 - 210	°C
Processing (Melt) Temp	190 - 210	°C
Mold Temperature	80.0 - 120	°C
Injection Pressure	60.0 - 120	MPa
Injection Rate	Slow	
Holding Pressure	60.0 - 120	MPa
Back Pressure	0.00 - 2.00	MPa

Injection instructions

Manifold Temperature: 190 to 210°C Zone 4 Temperature: 190 to 210°C Feed Temperature: 60 to 80°C

NOTE

1. 10°C/min

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