

Hostaform® C 9021 GV1/40

Acetal (POM) Copolymer

Celanese Corporation

Message:

POM copolymer

Injection molding type, reinforced with ca 40 % glass fibers; high resistance to thermal and oxidative degradation; reduced thermal expansion and shrinkage.

UL-registration in natural and a thickness more than 0.81 mm as UL 94 HB, temperature index UL 746 B for a thickness of 2 mm, electrical 105 °C, mechanical 95 °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 very high rigidity, similar properties like HOSTAFORM C 9021 GV1/30.

FMVSS = Federal Motor Vehicle Safety Standard (USA)

UL = Underwriters Laboratories (USA)

General Information			
UL YellowCard	E42337-234615		
Filler / Reinforcement	Glass fiber reinforced material, 40% filler by weight		
Features	Rigidity, high		
	Copolymer		
	Heat resistance, high		
Processing Method	Injection molding		
Resin ID (ISO 1043)	POM		
Physical	Nominal Value	Unit	Test Method
Density	1.72	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	2.50	cm ³ /10min	ISO 1133
Water Absorption (Saturation, 23°C)	0.90	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	13000	MPa	ISO 527-2/1A/1
Tensile Stress (Break)	140	MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.0	%	ISO 527-2/1A/5
Tensile Creep Modulus			ISO 899-1
1 hr	11000	MPa	ISO 899-1
1000 hr	7100	MPa	ISO 899-1
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	9.0	kJ/m ²	ISO 179/1eA
23°C	9.0	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	25	kJ/m ²	ISO 179/1eU
23°C	20	kJ/m ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method

Heat Deflection Temperature			
1.8 MPa, not annealed	161	°C	ISO 75-2/A
8.0 MPa, not annealed	136	°C	ISO 75-2/C
Melting Temperature ¹	166	°C	ISO 11357-3
CLTE - Flow	2.0E-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	4.50		IEC 60250
1 MHz	4.50		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
0.8 mm	HB		UL 94
1.6 mm	HB		UL 94
Additional Information	Nominal Value		Test Method
ISO Type	POM-K, M-GNR, 01-003, GF40		ISO 9988-1
Injection	Nominal Value	Unit	
Drying Temperature	100 - 120	°C	
Drying Time	3.0 - 4.0	hr	
Suggested Max Moisture	0.15	%	
Hopper Temperature	20 - 23	°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 - 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			
Feed Temperature: 60 to 80°CZone 4 Temperature: 190 to 210°CManifold Temperature: 190 to 210°C			
NOTE			
1.	10°C/min		

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