



Hostaform® C 9021 GV1/30

Celanese Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

General Information

Product Description

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

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 26% Filler by Weight		
Features	• High Hardness • High Stiffness	• High Strength • Low CLTE	• Low Shrinkage
RoHS Compliance	• Contact Manufacturer		
Appearance	• Colors Available	• Natural Color	
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• POM		

ASTM & ISO Properties ¹

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
Molding Shrinkage			ISO 294-4
Across Flow	1.0	%	
Flow	0.60	%	
Water Absorption (Saturation, 73°F)	0.90	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.17	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.33E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	19600	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.5	%	ISO 527-2/1A/5
Tensile Creep Modulus (1 hr)	1.12E+6	psi	ISO 899-1
Tensile Creep Modulus (1000 hr)	783000	psi	ISO 899-1
Flexural Modulus (73°F)	1.13E+6	psi	ISO 178
Flexural Stress (73°F)	23900	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	3.8	ft·lb/in ²	
73°F	3.8	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	17	ft·lb/in ²	
73°F	14	ft·lb/in ²	

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Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness ²	29000	psi	ISO 2039-1
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	320	°F	ISO 75-2/A
Heat Deflection Temperature (1160 psi, Unannealed)	257	°F	ISO 75-2/C
Vicat Softening Temperature	316	°F	ISO 306/B50
Melting Temperature ³	331	°F	ISO 11357-3
CLTE - Flow	2.2E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	4.4E-5	in/in/°F	ISO 11359-2
Effective Thermal Diffusivity	6.51E-8	m²/s	Internal Method
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+14	ohms	IEC 60093
Volume Resistivity	1.0E+14	ohms·cm	IEC 60093
Electric Strength	1000	V/mil	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	4.30		
1 MHz	4.30		
Dissipation Factor			IEC 60250
100 Hz	3.0E-3		
1 MHz	6.0E-3		
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.06 in	HB		
0.13 in	HB		
Fill Analysis	Nominal Value	Unit	Test Method
Melt Density	1.35	g/cm³	Internal Method
Melt Thermal Conductivity	1.5	Btu·in/hr/ft²/°F	Internal Method
Ejection Temperature	284	°F	
Specific Heat Capacity of Melt	0.433	Btu/lb/°F	
Processing Information			
Injection	Nominal Value	Unit	
Drying Temperature	212 to 248	°F	
Drying Time	3.0 to 4.0	hr	
Suggested Max Moisture	0.15	%	
Hopper Temperature	68 to 86	°F	
Rear Temperature	338 to 356	°F	
Middle Temperature	356 to 374	°F	
Front Temperature	374 to 392	°F	
Nozzle Temperature	374 to 410	°F	
Processing (Melt) Temp	374 to 410	°F	
Mold Temperature	176 to 248	°F	
Injection Rate	Slow		
Back Pressure	< 290	psi	
Injection Notes			
Feeding zone temperature: 60 to 80°C			
Zone4 temperature: 190 to 210°C			
Hot runner temperature: 190 to 210°C			

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Notes

¹ Typical properties: these are not to be construed as specifications.

² 30s

³ 10°C/min