

Hostaform® C 9021

Acetal (POM) Copolymer

Celanese Corporation

Message:

Chemical abbreviation according to ISO 1043-1: POM

Molding compound ISO 9988- POM-K, M-GNR, 03-002

POM copolymer

Standard-Injection molding type with high rigidity, hardness and toughness; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation.

Monomers and additives are listed in EU-Regulation (EU) 10/2011

FDA compliant according to 21 CFR 177.2470

UL-registration for all colours and a thickness more than 1.5 mm as

UL 94 HB, temperature index UL 746 B electrical 110°C, mechanical 90°C.

Burning rate ISO 3795 and FMVSS 302 < 75 mm/min for a thickness more than 1 mm.

Ranges of applications: automotive engineering, precision engineering, electric and electronical industry, domestic appliances.

FDA = Food and Drug Administration (USA)

FMVSS = Federal Motor Vehicle Safety Standard (USA)

UL = Underwriters Laboratories (USA)

General Information	
UL YellowCard	E42337-234607
Features	Rigidity, high
	Solvent resistance
	Good chemical resistance
	alkali resistance
	Fuel resistance
	Hydrolysis resistance
	Good toughness
	High hardness
Uses	Electrical/Electronic Applications
	Electrical appliances
	Engineering accessories
	Application in Automobile Field
Agency Ratings	FDA 21 CFR 177.2470
	Europe 10/1/2011 12:00:00 AM
RoHS Compliance	Contact manufacturer
Processing Method	Injection molding

Multi-Point Data	Isochronous Stress vs. Strain (ISO 11403-1)		
	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	1.41	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	8.00	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Vertical flow direction	1.8	%	ISO 294-4
Flow direction	2.0	%	ISO 294-4
Water Absorption (Saturation, 23°C)	0.65	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2850	MPa	ISO 527-2/1A/1
Tensile Stress (Yield)	64.0	MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	9.0	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	30	%	ISO 527-2/1A/50
Tensile Creep Modulus			ISO 899-1
1 hr	2500	MPa	ISO 899-1
1000 hr	1300	MPa	ISO 899-1
Flexural Modulus (23°C)	2700	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	6.0	kJ/m ²	ISO 179/1eA
23°C	6.5	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	160	kJ/m ²	ISO 179/1eU
23°C, local fracture	180	kJ/m ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	104	°C	ISO 75-2/A
Melting Temperature ¹	166	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow	1.1E-4	cm/cm/°C	ISO 11359-2
Lateral	1.1E-4	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	35	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	4.00		IEC 60250

1 MHz	4.00		IEC 60250
Dissipation Factor			IEC 60250
100 Hz	2.0E-3		IEC 60250
1 MHz	5.0E-3		IEC 60250
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.50 mm	HB		UL 94
3.00 mm	HB		UL 94
Fill Analysis	Nominal Value	Unit	Test Method
Density of Melt	1.200	g/cm ³	Internal method
Ejection Temperature	165	°C	Internal method
Specific Heat Capacity of Melt	2210	J/kg/°C	Internal method
Thermal Conductivity of Melt	0.16	W/m/K	Internal method
Effective Thermal Diffusivity	0.0485	cSt	Internal method
Injection	Nominal Value	Unit	
Drying Temperature	120 - 140	°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-Moderate		
Holding Pressure	60.0 - 120	MPa	
Back Pressure	0.00 - 4.00	MPa	
Injection instructions			
Manifold Temperature: 190 to 210°CZone 4 Temperature: 190 to 210°CFeed Temperature: 60 to 80°C			
NOTE			
1.	10°C/min		

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