

Hostaform® C 9021 K

Acetal (POM) Copolymer

Celanese Corporation

Message:

Chemical abbreviation according to ISO 1043-1: POM

Molding compound ISO 9988- POM-K, M-GNR, 03-002, K5

POM copolymer

Injection molding type, with special chalk modified; good wear properties; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation.

UL-registration in natural and a thickness more than 1.57 mm as UL 94

HB, temperature index UL 746 B electrical 105°C, mechanical 90°C

(tensile impact) and 80°C (tensile).

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

Ranges of applications: for unlubricated or once-only-lubricant sliding Parts.

FMVSS = Federal Motor Vehicle Safety Standard (USA)

UL = Underwriters Laboratories (USA)

General Information			
UL YellowCard	E42337-234619		
Filler / Reinforcement	chalk filler		
Features	Solvent resistance		
	Good chemical resistance		
	alkali resistance		
	Good wear resistance		
	Fuel resistance		
	Hydrolysis resistance		
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 Stress vs. Shear Rate (ISO 11403-1)		
Resin ID (ISO 1043)	POM		
Physical	Nominal Value	Unit	Test Method
Density	1.44	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	7.50	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	3000	MPa	ISO 527-2/1A/1
Tensile Stress (Yield)	60.0	MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	8.0	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	22	%	ISO 527-2/1A/50
Tensile Creep Modulus			ISO 899-1
1 hr	2500	MPa	ISO 899-1
1000 hr	1400	MPa	ISO 899-1
Flexural Modulus (23°C)	2900	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	5.0	kJ/m ²	ISO 179/1eA
23°C	5.0	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	100	kJ/m ²	ISO 179/1eU
23°C	100	kJ/m ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	100	°C	ISO 75-2/A
Melting Temperature ¹	166	°C	ISO 11357-3
CLTE - Flow	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	4.20		IEC 60250
1 MHz	4.20		IEC 60250
Dissipation Factor			IEC 60250
100 Hz	2.5E-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	1.230	g/cm ³	Internal method
Ejection Temperature	164	°C	Internal method
Specific Heat Capacity of Melt	2060	J/kg/°C	Internal method
Thermal Conductivity of Melt	0.20	W/m/K	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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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



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