



Hostaform® C 9021 K

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, 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

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Chalk		
Features	• Alkali Resistant • Chemical Resistant	• Fuel Resistant • Hydrocarbon Resistant	• Solvent Resistant • Wear Resistant
RoHS Compliance	• Contact Manufacturer		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• POM		

ASTM & ISO Properties ¹

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
Across Flow	1.8	%	
Flow	2.1	%	
Water Absorption (Saturation, 73°F)	0.65	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	435000	psi	ISO 527-2/1A
Tensile Stress (Yield)	8700	psi	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 (1 hr)	363000	psi	ISO 899-1
Tensile Creep Modulus (1000 hr)	203000	psi	ISO 899-1
Flexural Modulus (73°F)	421000	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	2.4	ft·lb/in ²	
73°F	2.4	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	48	ft·lb/in ²	
73°F	48	ft·lb/in ²	
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness ²	21000	psi	ISO 2039-1

Hostaform® C 9021 K

Celanese Corporation - Acetal (POM) Copolymer

Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	212	°F	ISO 75-2/A
Vicat Softening Temperature	302	°F	ISO 306/B50
Melting Temperature ³	331	°F	ISO 11357-3
CLTE - Flow	6.1E-5	in/in/°F	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
Electric Strength	890	V/mil	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	4.20		
1 MHz	4.20		
Dissipation Factor			IEC 60250
100 Hz	2.5E-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	1.23	g/cm ³	Internal Method
Melt Thermal Conductivity	1.4	Btu·in/hr/ft ² /°F	Internal Method
Ejection Temperature	284	°F	
Specific Heat Capacity of Melt	0.492	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

Notes

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

² 30s

³ 10°C/min