

Hostaform® C 13021

Acetal (POM) Copolymer

Celanese Corporation

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

Chemical abbreviation according to ISO 1043-1: POM
Molding compound ISO 9988- POM-K, M-GNR, 04-002

POM copolymer

Easy flowing Injection molding type for precision molded parts and thin-walled molded parts 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.

Fulfills EG-directive 2002/72/EU as well as the recommendation XXXIII for consumer goods of the BgVV,
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 electrical industry, domestic appliances.

FDA = Food and Drug Administration (USA)
BgVV = Bundesinstitut für gesundheitlichen Verbraucherschutz und Veterin rmedizin
UL = Underwriters Laboratories (USA)
FMVSS = Federal Motor Vehicle Safety Standard (USA)

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet - ISO (English)
UL Yellow Card ²	• E42337-234597
Search for UL Yellow Card	• Celanese Corporation • Hostaform®
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Features	• Alkali Resistant • Fuel Resistant • Good Chemical Resistance • High Hardness • High Stiffness • Hydrolysis Resistant • Medium Flow • Solvent Resistant • Ultra High Toughness
Agency Ratings	• BgVV Recommendation XXXIII • EU 2002/72/EG • FDA 21 CFR 177.2470
RoHS Compliance	• Contact Manufacturer
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1) • Viscosity vs. Shear Rate (ISO 11403-2)
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)	12.0 cm ³ /10min	ISO 1133
Molding Shrinkage		ISO 294-4
Across Flow	1.8 %	
Flow	2.0 %	
Water Absorption (Saturation, 23°C)	0.65 %	ISO 62
Mechanical	Nominal Value Unit	Test Method
Tensile Modulus	2900 MPa	ISO 527-2/1A/1



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Mechanical	Nominal Value Unit	Test Method
Tensile Stress (Yield)	65.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	9.0 %	ISO 527-2/1A/50
Nominal Tensile Strain at Break	25 %	ISO 527-2/1A/50
Tensile Creep Modulus		ISO 899-1
1 hr	2500 MPa	
1000 hr	1300 MPa	
Flexural Modulus (23°C)	2800 MPa	ISO 178
Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength		ISO 179/1eA
-30°C	6.0 kJ/m ²	
23°C	6.5 kJ/m ²	
Charpy Unnotched Impact Strength		ISO 179/1eU
-30°C	140 kJ/m ²	
23°C	150 kJ/m ²	
Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature		ISO 75-2/A
1.8 MPa, Unannealed	106 °C	
Melting Temperature ⁴	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 ohm	IEC 60093
Volume Resistivity	1.0E+14 ohm·cm	IEC 60093
Electric Strength	35 kV/mm	IEC 60243-1
Relative Permittivity		IEC 60250
100 Hz	4.00	
1 MHz	4.00	
Dissipation Factor		IEC 60250
100 Hz	2.0E-3	
1 MHz	5.0E-3	
Comparative Tracking Index	600 V	IEC 60112
Flammability	Nominal Value Unit	Test Method
Flame Rating		UL 94
1.50 mm	HB	
3.00 mm	HB	
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
Injection	Nominal Value Unit	Test Method
Drying Temperature	120 to 140 °C	
Drying Time	3.0 to 4.0 hr	
Suggested Max Moisture	0.15 %	
Hopper Temperature	20.0 to 30.0 °C	
Rear Temperature	170 to 180 °C	
Middle Temperature	180 to 190 °C	
Front Temperature	190 to 200 °C	
Nozzle Temperature	190 to 210 °C	
Processing (Melt) Temp	190 to 210 °C	
Mold Temperature	80.0 to 120 °C	
Injection Pressure	60.0 to 120 MPa	
Injection Rate	Slow-Moderate	



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Injection	Nominal Value Unit
Holding Pressure	60.0 to 120 MPa
Back Pressure	0.00 to 4.00 MPa

Injection Notes

Manifold Temperature: 190 to 210°C
Zone 4 Temperature: 190 to 210°C
Feed Temperature: 60 to 80°C

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ 10°C/min

