Hostaform® C 27021

Acetal (POM) Copolymer

Celanese Corporation

Message:

Chemical abbreviation according to ISO 1043-1: POM
Molding compound ISO 9988- POM-K, M-GNR, 05-002
POM copolymer
Very easy flowing Injection molding type with high rigidity and hardness; 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: thin-walled molded parts with unfavourite flow-path-wallthickness relation; multicavity moulds; complicated precision molded parts; short cycle time.
FDA = Food and Drug Administration (USA)
FMVSS = Federal Motor Vehicle Safety Standard (USA)
UL = Underwriters Laboratories (USA)

General Information	
UL YellowCard	E42337-234603
Features	Rigidity, high Solvent resistance High liquidity Good chemical resistance alkali resistance Fuel resistance Hydrolysis resistance High hardness
Uses	Thin wall parts
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	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/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	24.0	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Vertical flow direction	1.8	%	ISO 294-4
Flow direction	1.9	%	ISO 294-4
Water Absorption (Saturation, 23°C)	0.65	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2900	MPa	ISO 527-2/1A/1
Tensile Stress (Yield)	65.0	MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	7.5	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	17	%	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)	2800	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	5.5	kJ/m²	ISO 179/1eA
23°C	5.5	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	120	kJ/m²	ISO 179/1eU
23°C	120	kJ/m²	ISO 179/1eU
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (1.8 MPa, Unannealed)	106	°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	4.00		IEC 60250
1 MHz	4.00		IEC 60250
Dissipation Factor			IEC 60250
100 Hz	2.5E-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/cm³	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**	
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		

Recommended distributors for this material

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