

Hostaform® C 52021 XAP

Acetal (POM) Copolymer

Celanese Corporation

Message:

POM copolymer

Extremely easy flowing Injection molding type with low emissions for very thin-walled precision molded parts with unfavourable flow-path-wallthickness relation; permits processing at reduced temperature and also shorter cycle times.

Emission according to VDA 275 < 10 mg/kg (natural grades)

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

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

FDA compliant according to 21 CFR 177.2470

FDA = Food and Drug Administration (USA)

General Information			
Features	Low volatilization		
	Fast molding cycle		
	Good liquidity		
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		
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)	39.0	cm ³ /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	3000	MPa	ISO 527-2/1A/1
Tensile Stress (Yield)	65.0	MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	7.0	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	15	%	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	5.0	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)	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	3.0E-3		IEC 60250
1 MHz	5.0E-3		IEC 60250
Comparative Tracking Index	600	V	IEC 60112
Fill Analysis	Nominal Value	Unit	Test Method
Density of Melt	1.200	g/cm ³	Internal method
Ejection Temperature	163	°C	Internal method
Specific Heat Capacity of Melt	2060	J/kg/°C	Internal method
Thermal Conductivity of Melt	0.19	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°C Zone 4 Temperature: 190 to 210°C Feed Temperature: 60 to 80°C

NOTE

1. 10°C/min

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