Hostaform® C 2521 LS

Celanese Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

General Information

Product Description

POM copolymer Stiff-flowing type for injection molding and extrusion with high impact toughness and good tracking resistance over a high range of temperature; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation. This grade has been specially stabilized to prevent discoloration and deterioration of mechanical properties from ultraviolet light exposure. The material is available in natural, black and colored. Burning rate ISO 3795 and FMVSS 302 < 75 mm/min for a thickness more than 1 mm. Ranges of applications: injection molding thick-walled, void-free molded parts; extrusion e.g. for boards and pipes. FMVSS = Federal Motor Vehicle Safety Standard (USA)

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Alkali Resistant • Chemical Resistant • Fuel Resistant	• High Impact Resistance • Hydrolysis Resistant • Solvent Resistant	• UV Resistant
Uses	• Piping	• Thick-walled Parts	
RoHS Compliance	• Contact Manufacturer		
Appearance	• Black	• Colors Available	• Natural Color
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.41	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	2.50	cm³/10min	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	377000	psi	ISO 527-2/1A
Tensile Stress (Yield)	8990	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	9.0	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	32	%	ISO 527-2/1A/50
Tensile Creep Modulus (1 hr)	334000	psi	ISO 899-1
Tensile Creep Modulus (1000 hr)	160000	psi	ISO 899-1
Flexural Modulus (73°F)	363000	psi	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	3.3	ft·lb/in²	
73°F	4.0	ft·lb/in²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	120	ft·lb/in²	
73°F, Partial Break	120	ft·lb/in²	

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Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness [2]	20900	psi	ISO 2039-1
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (264 psi, Unannealed)	214	°F	ISO 75-2/A
Vicat Softening Temperature	304	°F	ISO 306/B50
Melting Temperature [3]	329	°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	4.00		
1 MHz	4.00		
Dissipation Factor			IEC 60250
100 Hz	1.5E-3		
1 MHz	5.0E-3		
Comparative Tracking Index	600	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.06 in	HB		
0.12 in	HB		
Fill Analysis	**Nominal Value**	**Unit**	**Test Method**
Melt Density	1.20	g/cm³	Internal Method
Melt Thermal Conductivity	1.1	Btu·in/hr/ft²/°F	Internal Method
Ejection Temperature	284	°F	
Specific Heat Capacity of Melt	0.528	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-Moderate	
Back Pressure	< 580	psi

Injection Notes

Feeding zone temperature: 60 to 80°C
Zone4 temperature: 190 to 210°C
Hot runner temperature: 190 to 210°C

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Notes

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

[2] 30s

[3] 10°C/min