

Celanese Hostaform[®] C 9021 G

Chemical abbreviation according to ISO 1043-1: POM
Information provided by Celanese

Physical Properties	Metric	English	Comments
Density	1.34 g/cc	0.0484 lb/in ³	ISO 1183
Water Absorption at Saturation	0.80 %	0.80 %	ISO 62
Linear Mold Shrinkage, Flow	0.023 cm/cm	0.023 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.018 cm/cm	0.018 in/in	ISO 294-4
Melt Flow	5.5 g/10 min @Load 2.16 kg, Temperature 190 °C	5.5 g/10 min @Load 4.76 lb, Temperature 374 °F	[cm ³ /10min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	45.0 MPa	6530 psi	50mm/min; ISO 527-2/1A
Elongation at Break	10 %	10 %	
Elongation at Yield	9.0 %	9.0 %	50mm/min; ISO 527-2/1A
Tensile Modulus	2.30 GPa	334 ksi	50mm/min; ISO 527-2/1A
Flexural Modulus	2.10 GPa	305 ksi	ISO 178
Charpy Impact Unnotched	3.00 J/cm ²	14.3 ft-lb/in ²	ISO 179/1eU
Charpy Impact, Notched	3.00 J/cm ² @Temperature -30.0 °C	14.3 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eU
	0.350 J/cm ²	1.67 ft-lb/in ²	ISO 179/1eA
Tensile Creep Modulus, 1 hour	0.300 J/cm ² @Temperature -30.0 °C	1.43 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eA
	2000 MPa	290000 psi	ISO 899-1
Tensile Creep Modulus, 1000 hours	1300 MPa	189000 psi	ISO 899-1

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+14 ohm-cm	1.00e+14 ohm-cm	IEC 60093
Surface Resistance	1.00e+14 ohm	1.00e+14 ohm	IEC 60093
Dielectric Constant	3.8	3.8	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Dielectric Strength	3.8	3.8	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	35.0 kV/mm	889 kV/in	IEC 60243-1
Dissipation Factor	0.0025	0.0025	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Comparative Tracking Index	0.0070	0.0070	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Comparative Tracking Index	600 V	600 V	IEC 60112

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	120 µm/m-°C	66.7 µin/in-°F	ISO 11359-2
Melting Point	166 °C	331 °F	10°C/min; ISO 11357-1,-2,-3
Deflection Temperature at 1.8 MPa (264 psi)	88.0 °C	190 °F	ISO 75-1,-2

Processing Properties	Metric	English	Comments
Processing Temperature	80.0 - 120 °C	176 - 248 °F	cavity
	190 - 210 °C	374 - 410 °F	hot runner
Feed Temperature	60.0 - 80.0 °C	140 - 176 °F	
Zone 1	170 - 180 °C	338 - 356 °F	
Zone 2	180 - 190 °C	356 - 374 °F	
Zone 3	190 - 200 °C	374 - 392 °F	
Zone 4	190 - 210 °C	374 - 410 °F	
Die Temperature	190 - 210 °C	374 - 410 °F	
Melt Temperature	190 - 210 °C	374 - 410 °F	
Drying Temperature	100 - 120 °C	212 - 248 °F	
Dry Time	3.00 - 4.00 hour	3.00 - 4.00 hour	
Moisture Content	<= 0.15 %	<= 0.15 %	
Injection Pressure	60.0 - 120 MPa	8700 - 17400 psi	
Hold Pressure	60.0 - 120 MPa	8700 - 17400 psi	
Back Pressure	<= 2.00 MPa	<= 290 psi	
Screw Speed	70 rpm	70 rpm	
	@Diameter 55.0 mm	@Diameter 2.17 in	
	100 rpm	100 rpm	
	@Diameter 40.0 mm	@Diameter 1.57 in	
	150 rpm	150 rpm	
	@Diameter 25.0 mm	@Diameter 0.984 in	
Descriptive Properties			
Injection molding		Yes	
Injection speed		slow	
Processing conditions acc. ISO		9988	