

Celanese Hostaform® C 9021 GV3/20

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

Physical Properties	Metric	English	Comments
Density	1.53 g/cc	0.0553 lb/in ³	ISO 1183
Water Absorption at Saturation	0.80 %	0.80 %	ISO 62
Melt Flow	8.5 g/10 min @Load 2.16 kg, Temperature 190 °C	8.5 g/10 min @Load 4.76 lb, Temperature 374 °F	[cm ³ /10min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	46.0 MPa	6670 psi	50mm/min; ISO 527-2/1A
Elongation at Break	15 %	15 %	
Elongation at Yield	6.5 %	6.5 %	50mm/min; ISO 527-2/1A
Tensile Modulus	3.40 GPa	493 ksi	50mm/min; ISO 527-2/1A
Flexural Modulus	3.20 GPa	464 ksi	ISO 178
Charpy Impact Unnotched	5.00 J/cm ²	23.8 ft-lb/in ²	ISO 179/1eU
Charpy Impact, Notched	5.00 J/cm ² @Temperature -30.0 °C	23.8 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	0.350 J/cm ² @Temperature -30.0 °C	1.67 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eA
	3000 MPa	435000 psi	ISO 899-1
Tensile Creep Modulus, 1000 hours	1700 MPa	247000 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	4.2	4.2	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Dielectric Strength	4.5	4.5	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dissipation Factor	35.0 kV/mm	889 kV/in	IEC 60243-1
Comparative Tracking Index	0.0070	0.0070	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Flammability, UL94	0.020	0.020	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	600 V	600 V	IEC 60112

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	100 µm/m-°C	55.6 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)	110 °C	230 °F	ISO 75-1, -2
Flammability, UL94	HB	HB	
	@Thickness 1.50 mm	@Thickness 0.0591 in	

	HB @Thickness 0.810 mm	HB @Thickness 0.0319 in	
Processing Properties			
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 @Diameter 55.0 mm	70 rpm @Diameter 2.17 in	
	100 rpm @Diameter 40.0 mm	100 rpm @Diameter 1.57 in	
	150 rpm @Diameter 25.0 mm	150 rpm @Diameter 0.984 in	
Descriptive Properties			
Injection molding	Yes		
Injection speed	slow		
Processing conditions acc. ISO	9988		