# Hostaform® C 9021 GV3/20

## Celanese Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

## General Information

**Product Description**

Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 9988- POM-K, M-GNR, 03-002, GB20 POM copolymer Injection molding type, reinforced with ca. 20 % glass spheres; high resistance to thermal and oxidative degradation. UL-registration in natural and a thickness more than 0.81 mm, in black and a thickness more than 1.5 mm as UL94 HB, temperature index UL 746 B for a thickness of 3 mm, electrical 105 °C, mechanical 95 °C (tensile impact) and 100 °C (tensile). Burning rate ISO 3795 and FMVSS 302 < 100 mm/min for a thickness more than 1 mm. Ranges of applications: For low-warpage molded parts with higher rigidity and hardness. FMVSS = Federal Motor Vehicle Safety Standard (USA) UL = Underwriters Laboratories (USA)

| General | | | |
|---|---|---|---|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America |
| Filler / Reinforcement | • Glass Bead, 20% Filler by Weight | | |
| Features | • High Hardness | • High Stiffness | • Low Warpage |
| RoHS Compliance | • Contact Manufacturer | | |
| Processing Method | • Injection Molding | | |
| Resin ID (ISO 1043) | • POM | | |

## ASTM & ISO Properties [1]

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density | 1.53 | g/cm³ | ISO 1183 |
| Melt Volume-Flow Rate (MVR) (190°C/2.16 kg) | 8.50 | cm³/10min | ISO 1133 |
| Water Absorption (Saturation, 73°F) | 0.80 | % | ISO 62 |
| Water Absorption (Equilibrium, 73°F, 50% RH) | 0.15 | % | ISO 62 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus | 493000 | psi | ISO 527-2/1A |
| Tensile Stress (Yield) | 6670 | psi | ISO 527-2/1A/50 |
| Tensile Strain (Yield) | 6.5 | % | ISO 527-2/1A/50 |
| Nominal Tensile Strain at Break | 15 | % | ISO 527-2/1A/50 |
| Tensile Creep Modulus (1 hr) | 435000 | psi | ISO 899-1 |
| Tensile Creep Modulus (1000 hr) | 247000 | psi | ISO 899-1 |
| Flexural Modulus (73°F) | 464000 | psi | ISO 178 |
| Compressive Stress | | | ISO 604 |
| 1% Strain | 3770 | psi | |
| 6% Strain | 12300 | psi | |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Charpy Notched Impact Strength | | | ISO 179/1eA |
| -22°F | 1.7 | ft·lb/in² | |
| 73°F | 1.7 | ft·lb/in² | |
| Charpy Unnotched Impact Strength | | | ISO 179/1eU |
| -22°F | 24 | ft·lb/in² | |
| 73°F | 24 | ft·lb/in² | |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Ball Indentation Hardness [2] | 23800 | psi | ISO 2039-1 |

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| Thermal | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Heat Deflection Temperature (264 psi, Unannealed) | 230 | °F | ISO 75-2/A |
| Vicat Softening Temperature | 304 | °F | ISO 306/B50 |
| Melting Temperature [3] | 331 | °F | ISO 11357-3 |
| CLTE - Flow | 5.6E-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 | 4.50 | | |
| 1 MHz | 4.20 | | |
| Dissipation Factor | | | IEC 60250 |
| 100 Hz | 0.020 | | |
| 1 MHz | 7.0E-3 | | |
| Comparative Tracking Index | 600 | V | IEC 60112 |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |
| Flame Rating | | | UL 94 |
| 0.03 in | HB | | |
| 0.06 in | HB | | |

## 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 | |
| Back Pressure | < 290 | psi |

**Injection Notes**

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

### Notes

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

[2] 30s

[3] 10°C/min