

Covestro Apec® DP9-9371 High-Heat Polycarbonate, General Purpose

Polymer, Thermoplastic, Polycarbonate (PC), Polycarbonate, High Heat

Covestro

产品说明

Information provided by Bayer Corporation, Plastics Division. As of 1 September 2015, Bayer Material Science was separated from Bayer AG and has officially adopted its new name – Covestro. This product was discontinued prior to the separation.

| 物理性能 | 额定值 (公制) | 额定值 (英制) | 测试方法 |
|--------------------|--|--|--|
| 密度 | 1.14 g/cc | 0.0412 lb/in ³ | ASTM D792 |
| 吸水率 | 0.20 % | 0.20 % | 24 hr immersion; ASTM D570 |
| 线性成型收缩率 | 0.0080 - 0.0090 cm/cm | 0.0080 - 0.0090 in/in | ASTM D955 |
| 熔体流动速率 | 4.0 g/10 min @ Load 2.16 kg, Temperature 330 °C | 4.0 g/10 min @ Load 4.76 lb, Temperature 626 °F | ASTM D1238 |
| 机械性能 | 额定值 (公制) | 额定值 (英制) | 测试方法 |
| 洛氏硬度(M 级) | 91 | 91 | ASTM D785 |
| 洛氏硬度(R 级) | 127 | 127 | ASTM D785 |
| 极限抗拉强度 | 57.0 MPa | 8270 psi | ASTM D638 |
| 抗张强度(屈服) | 69.0 MPa | 10000 psi | ASTM D638 |
| 伸长率(断裂) | 70 % | 70 % | ASTM D638 |
| 屈服伸长率 | 6.0 % | 6.0 % | ASTM D638 |
| 拉伸模量 | 2.20 GPa | 319 ksi | ASTM D638 |
| 弯曲强度 | 86.0 MPa | 12500 psi | ASTM D790 |
| 弯曲模量 | 2.28 GPa | 331 ksi | ASTM D790 |
| 悬臂梁缺口冲击强度 | 0.800 J/cm @ Thickness 3.17 mm | 1.50 ft-lb/in @ Thickness 0.125 in | ASTM D256 |
| 悬臂梁无缺口冲击强度 | NB | NB | ASTM D256 |
| | NB @ Temperature -40.0 °C | NB @ Temperature -40.0 °F | ASTM D256 |
| 冲击试验 | 62.0 J @ Thickness 3.20 mm | 45.7 ft-lb @ Thickness 0.126 in | Instrumented Impact, Total Energy; 15 mph, 3 in. clamp, 0.5 in. dart; ASTM D3763 |
| 电气性能 | 额定值 (公制) | 额定值 (英制) | 测试方法 |
| 电阻率 | >= 1.00e+16 ohm-cm | >= 1.00e+16 ohm-cm | ASTM D257 |
| 表面电阻 | >= 1.00e+16 ohm | >= 1.00e+16 ohm | ASTM D257 |
| 介电常数 | 2.8 @ Frequency 60 Hz | 2.8 @ Frequency 60 Hz | ASTM D150 |
| | 2.8 @ Frequency 1e+6 Hz | 2.8 @ Frequency 1e+6 Hz | ASTM D150 |
| 介电强度 | >= 16.0 kV/mm @ Thickness 3.17 mm | >= 406 kV/in @ Thickness 0.125 in | ASTM D149 |
| 耗散因数 | 0.0010 @ Frequency 60 Hz | 0.0010 @ Frequency 60 Hz | ASTM D150 |
| | 0.010 @ Frequency 1e+6 Hz | 0.010 @ Frequency 1e+6 Hz | ASTM D150 |
| 热性能 | 额定值 (公制) | 额定值 (英制) | 测试方法 |
| 线性热膨胀系数 | 70.0 µm/m-°C @ Temperature 20.0 °C | 38.9 µin/in-°F @ Temperature 68.0 °F | ASTM D696 |
| 载荷下热变形温度(0.46 MPa) | 195 °C @ Thickness 3.20 mm | 383 °F @ Thickness 0.126 in | ASTM D648 |
| 载荷下热变形温度(1.8 MPa) | 179 °C @ Thickness 3.17 mm | 354 °F @ Thickness 0.125 in | ASTM D648 |
| 维卡软化温度 | 205 °C | 401 °F | Rate B; ASTM D1525 |
| UL RTI | 150 °C @ Thickness 1.50 mm | 302 °F @ Thickness 0.0591 in | UL746B |
| UL RTI,机械冲击 | 150 °C @ Thickness 1.50 mm | 302 °F @ Thickness 0.0591 in | UL746B |
| UL RTI,机械无冲击 | 150 °C @ Thickness 1.50 mm | 302 °F @ Thickness 0.0591 in | UL746B |
| 可燃性(UL94) | HB @ Thickness 1.50 mm | HB @ Thickness 0.0591 in | |

| | HB @ Thickness 1.50 mm | HB @ Thickness 0.0591 in | |
|-----------------------|------------------------------|-------------------------------|-------------|
| 极限氧指数 | 24 % | 24 % | ASTM D2863 |
| 光学性能 | 额定值 (公制) | 额定值 (英制) | 测试方法 |
| 折射率 | 1.565 | 1.565 | ASTM D542 |
| 雾度 | 1.0 % @ Thickness 3.17 mm | 1.0 % @ Thickness 0.125 in | ASTM D1003 |
| Transmission, Visible | 88 % @ Thickness 3.20 mm | 88 % @ Thickness 0.126 in | ASTM D1003 |
| 加工性能 | 额定值 (公制) | 额定值 (英制) | 测试方法 |
| 加工(熔体)温度 | 325 - 350 °C | 617 - 662 °F | |