

SABIC Innovative Plastics Lexan® SLX2431T PC Copolymer

Polymer, Thermoplastic, Polycarbonate (PC)

SABIC Innovative Plastics (GE Plastics)

产品说明

Medium viscosity PC copolymer blend with enhanced UV stabilization and added release agent. V2 rated. Available in transparent and tinted colors

| 物理性能 | 额定值 (公制) | 额定值 (英制) | 测试方法 |
|---------------|--|--|---|
| 比重 | 1.20 g/cc | 1.20 g/cc | ASTM D792 |
| 密度 | 1.20 g/cc | 0.0434 lb/in ³ | ISO 1183 |
| 水分吸收 | 0.150 % | 0.150 % | 23°C / 50% RH; ISO 62 |
| 饱和吸水率 | 0.35 % | 0.35 % | ISO 62 |
| 线性成型收缩率, Flow | 0.0050 - 0.0070 cm/cm @ Thickness 3.20 mm | 0.0050 - 0.0070 in/in @ Thickness 0.126 in | SABIC Method |
| 熔体流动速率 | 10 g/10 min @ Load 1.20 kg, Temperature 300 °C | 10 g/10 min @ Load 2.65 lb, Temperature 572 °F | ASTM D1238 |
| 化合物熔体指数 | 9.0 g/10 min @ Load 1.20 kg, Temperature 300 °C | 9.0 g/10 min @ Load 2.65 lb, Temperature 572 °F | MVR [cm ³ /10 min]; ISO 1133 |
| 机械性能 | 额定值 (公制) | 额定值 (英制) | 测试方法 |
| 抗张强度(断裂) | 70.0 MPa | 10200 psi | 50 mm/min; ISO 527 |
| | 73.0 MPa | 10600 psi | Type I, 50 mm/min; ASTM D638 |
| 抗张强度(屈服) | 65.0 MPa | 9430 psi | Type I, 50 mm/min; ASTM D638 |
| | 65.0 MPa | 9430 psi | 50 mm/min; ISO 527 |
| 伸长率 (断裂) | >= 100 % | >= 100 % | Type I, 50 mm/min; ASTM D638 |
| | >= 100 % | >= 100 % | 50 mm/min; ISO 527 |
| 屈服伸长率 | 6.0 % | 6.0 % | 50 mm/min; ISO 527 |
| | 6.4 % | 6.4 % | Type I, 50 mm/min; ASTM D638 |
| 拉伸模量 | 2.30 GPa | 334 ksi | 1 mm/min; ISO 527 |
| | 2.40 GPa | 348 ksi | 5 mm/min; ASTM D638 |
| 弯曲强度 | 100 MPa | 14500 psi | 1.3 mm/min, 50 mm span; ASTM D790 |
| | 100 MPa | 14500 psi | 2 mm/min; ISO 178 |
| 弯曲模量 | 2.45 GPa | 355 ksi | 1.3 mm/min, 50 mm span; ASTM D790 |
| | 2.45 GPa | 355 ksi | 2 mm/min; ISO 178 |
| 悬臂梁缺口冲击强度 | 8.20 J/cm | 15.4 ft-lb/in | ASTM D256 |
| | 1.00 J/cm @ Temperature -30.0 °C | 1.87 ft-lb/in @ Temperature -22.0 °F | ASTM D256 |
| | 65.0 kJ/m ² | 30.9 ft-lb/in ² | 80*10*3; ISO 180/1A |
| 悬臂梁无缺口冲击强度 | 10.0 kJ/m ² @ Temperature -30.0 °C | 4.76 ft-lb/in ² @ Temperature -22.0 °F | 80*10*3; ISO 180/1A |
| | NB | NB | 80*10*3; ISO 180/1U |
| 简支梁无缺口冲击强度 | NB | NB | Edgew 80*10*3 sp=62mm; ISO 179/1eU |
| 简支梁缺口冲击强度 | 6.50 J/cm ² | 30.9 ft-lb/in ² | Edgew 80*10*3 sp=62mm; ISO 179/1eA |
| 落锤总能量 | 1.50 J/cm ² @ Temperature -30.0 °C | 7.14 ft-lb/in ² @ Temperature -22.0 °F | Edgew 80*10*3 sp=62mm; ISO 179/1eA |
| | 80.0 J @ Temperature 23.0 °C | 59.0 ft-lb @ Temperature 73.4 °F | ASTM D3763 |
| 热性能 | 额定值 (公制) | 额定值 (英制) | 测试方法 |
| 线形热膨胀系数 - 流动 | 70.0 µm/m-°C @ Temperature -40.0 - 40.0 °C | 38.9 µin/in-°F @ Temperature -40.0 - 104 °F | ASTM E 831 |
| | 70.0 µm/m-°C @ Temperature -40.0 - 40.0 °C | 38.9 µin/in-°F @ Temperature -40.0 - 104 °F | ISO 11359-2 |
| 线性热膨胀系数, 横向流动 | 70.0 µm/m-°C @ Temperature -40.0 - 40.0 °C | 38.9 µin/in-°F @ Temperature -40.0 - 104 °F | ASTM E 831 |
| | 70.0 µm/m-°C @ Temperature -40.0 - 40.0 °C | 38.9 µin/in-°F @ Temperature -40.0 - 104 °F | ISO 11359-2 |

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| 载荷下热变形温度(1.8 MPa) | 131 °C | 268 °F | Flatw 80*10*4 sp=64mm; ISO 75/Af |
| | 134 °C @ Thickness 3.20 mm | 273 °F @ Thickness 0.126 in | unannealed; ASTM D648 |
| 维卡软化温度 | 137 °C | 279 °F | Rate B/50; ISO 306 |
| | 139 °C | 282 °F | Rate B/120; ISO 306 |
| | 149 °C | 300 °F | Rate B/50; ASTM D1525 |
| 可燃性(UL94) | V-2 @ Thickness 1.50 mm | V-2 @ Thickness 0.0591 in | UL 94 by SABIC-IP |
| 灼热丝试验 | 825 °C | 1520 °F | IEC 60695-2-13 |
| | 825 °C | 1520 °F | IEC 60695-2-13 |
| | 825 °C | 1520 °F | IEC 60695-2-13 |
| | 825 °C | 1520 °F | IEC 60695-2-13 |
| | 960 °C @ Thickness 1.50 mm | 1760 °F @ Thickness 0.0591 in | IEC 60695-2-12 |
| 光学性能 | 额定值 (公制) | 额定值 (英制) | 测试方法 |
| 折射率 | 1.59 | 1.59 | ISO 489 |
| 雾度 | 0.20 % @ Thickness 2.54 mm | 0.20 % @ Thickness 0.100 in | ASTM D1003 |
| Transmission, Visible | 89 % | 89 % | 2.54 mm; ASTM D1003 |
| 材料描述 | | | 测试方法 |
| 球压试验, 125°C +/- 2°C | passes | | IEC 60695-10-2 |
| Ball Pressure Test, 75°C +/- 2°C | passes | | IEC 60695-10-2 |