

LEXAN™ FR RESINS LUX7189

REGION ASIA

DESCRIPTION

LEXAN LUX7189 is an injection moldable polycarbonate (PC) with an MVR (300°C/1.2kg) 23. It contains non-brominated, non-chlorinated flame retardant systems with UL-94 V0@1.5mm rating. It is designed for high light reflectance and shielding applications with good UV weathering capability.

TYPICAL PROPERTY VALUES

Revision 20230419

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|--|----------------|-------------------|--------------|
| MECHANICAL | | | |
| Tensile Stress, yld, Type I, 50 mm/min | 60 | MPa | ASTM D638 |
| Tensile Stress, brk, Type I, 50 mm/min | 52 | MPa | ASTM D638 |
| Tensile Strain, yld, Type I, 50 mm/min | 6 | % | ASTM D638 |
| Tensile Strain, brk, Type I, 50 mm/min | 110 | % | ASTM D638 |
| Tensile Modulus, 50 mm/min | 2700 | MPa | ASTM D638 |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 98 | MPa | ASTM D790 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 2700 | MPa | ASTM D790 |
| IMPACT | | | |
| Izod Impact, unnotched, 23°C | 2140 | J/m | ASTM D4812 |
| Izod Impact, notched, 23°C | 150 | J/m | ASTM D256 |
| Izod Impact, notched, -30°C | 100 | J/m | ASTM D256 |
| Instrumented Dart Impact Energy @ peak, 23°C | 59 | J | ASTM D3763 |
| THERMAL | | | |
| Vicat Softening Temp, Rate B/50 | 140 | °C | ASTM D1525 |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 135 | °C | ASTM D648 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 125 | °C | ASTM D648 |
| CTE, -40°C to 40°C, flow | 6.E-05 | 1/°C | ASTM E831 |
| CTE, -40°C to 40°C, xflow | 6.5E-05 | 1/°C | ASTM E831 |
| PHYSICAL | | | |
| Specific Gravity | 1.3 | - | ASTM D792 |
| Density | 1.3 | g/cm ³ | ASTM D792 |
| Mold Shrinkage, flow, 3.2 mm | 0.5 – 0.7 | % | SABIC method |
| Melt Flow Rate, 300°C/1.2 kgf | 22 | g/10 min | ASTM D1238 |
| FLAME CHARACTERISTICS | | | |
| UL Recognized, 94V-0 Flame Class Rating | 1.5 | mm | UL 94 |
| UL Recognized, 94-5VA Flame Class Rating | 3 | mm | UL 94 |
| UL Recognized, 94-5VB Flame Class Rating | 2.5 | mm | UL 94 |
| INJECTION MOLDING | | | |
| Drying Temperature | 120 | °C | |
| Drying Time | 3 – 4 | Hrs | |
| Drying Time (Cumulative) | 48 | Hrs | |
| Maximum Moisture Content | 0.02 | % | |
| Melt Temperature | 270 – 295 | °C | |
| Nozzle Temperature | 265 – 290 | °C | |

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|-----------------------------|----------------|-------|--------------|
| Front - Zone 3 Temperature | 270 – 295 | °C | |
| Middle - Zone 2 Temperature | 260 – 280 | °C | |
| Rear - Zone 1 Temperature | 250 – 270 | °C | |
| Mold Temperature | 70 – 95 | °C | |
| Back Pressure | 0.3 – 0.7 | MPa | |
| Screw Speed | 40 – 70 | rpm | |
| Shot to Cylinder Size | 40 – 60 | % | |
| Vent Depth | 0.025 – 0.076 | mm | |

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