

LEXANTM RESIN LS1

REGION AMERICAS

DESCRIPTION

UL rated HB as of 10/97. 200 series recommended when V-2 rating required. Automotive lens applications. Low viscosity. UV-stabilized. Transparent colors only.

TYPICAL PROPERTY VALUES

Revision 20190718

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|--|--------------------------------|-------------------|--------------|
| MECHANICAL | | | |
| Tensile Stress, yld, Type I, 50 mm/min | 62 | MPa | ASTM D 638 |
| Tensile Strain, brk, Type I, 50 mm/min | 125 | % | ASTM D 638 |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 96 | MPa | ASTM D 790 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 2340 | MPa | ASTM D 790 |
| IMPACT | | | |
| Izod Impact, notched, 23°C | 694 | J/m | ASTM D 256 |
| Tensile Impact Strength, Type S | 472 | kJ/m ² | ASTM D 1822 |
| Falling Dart Impact, 23°C | 169 | J | SABIC method |
| Instrumented Impact Energy @ peak, 23°C | 62 | J | ASTM D 3763 |
| THERMAL | | | |
| HDT, 1.82 MPa, 6.4 mm, unannealed | 129 | °C | ASTM D 648 |
| Relative Temp Index, Elec | 130 | °C | UL 746B |
| Relative Temp Index, Mech w/impact | 125 | °C | UL 746B |
| Relative Temp Index, Mech w/o impact | 125 | °C | UL 746B |
| PHYSICAL | | | |
| Specific Gravity | 1.2 | - | ASTM D 792 |
| Water Absorption, 24 hours | 0.15 | % | ASTM D 570 |
| Mold Shrinkage, flow, 3.2 mm | 0.5 – 0.7 | % | SABIC method |
| Melt Flow Rate, 300°C/1.2 kgf | 17.5 | g/10 min | ASTM D 1238 |
| OPTICAL | | | |
| Light Transmission, 2.54 mm | 88 | % | ASTM D 1003 |
| ELECTRICAL | | | |
| Hot Wire Ignition {PLC} | 4 | PLC Code | UL 746A |
| High Voltage Arc Track Rate {PLC} | 2 | PLC Code | UL 746A |
| High Ampere Arc Ign, surface {PLC} | 1 | PLC Code | UL 746A |
| Comparative Tracking Index (UL) {PLC} | 2 | PLC Code | UL 746A |
| FLAME CHARACTERISTICS | | | |
| UL Yellow Card Link | E121562-220970 | - | - |
| UL Recognized, 94HB Flame Class Rating | 1.47 | mm | UL 94 |
| UV-light, water exposure/immersion | F1 | - | UL 746C |
| INJECTION MOLDING | | | |
| Drying Temperature | 120 | °C | |
| Drying Time | 3 – 4 | hrs | |

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|-----------------------------|----------------|-------|--------------|
| Drying Time (Cumulative) | 48 | hrs | |
| Maximum Moisture Content | 0.02 | % | |
| Melt Temperature | 280 – 305 | °C | |
| Nozzle Temperature | 275 – 300 | °C | |
| Front - Zone 3 Temperature | 280 – 305 | °C | |
| Middle - Zone 2 Temperature | 270 – 295 | °C | |
| Rear - Zone 1 Temperature | 260 – 280 | °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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