

# LEXAN™ LS2 resin

Polycarbonate

SABIC Innovative Plastics

## Message:

Automotive lens applications. Medium viscosity. UV-stabilized. Transparent colors only.

| General Information                                              |                                 |                |                 |
|------------------------------------------------------------------|---------------------------------|----------------|-----------------|
| UL YellowCard                                                    | E45587-236916                   | E207780-228443 |                 |
| Additive                                                         | UV stabilizer                   |                |                 |
| Features                                                         | Low viscosity                   |                |                 |
| Uses                                                             | Application in Automobile Field |                |                 |
| Appearance                                                       | Available colors                |                |                 |
|                                                                  | Clear/transparent               |                |                 |
|                                                                  |                                 |                |                 |
| Processing Method                                                | Injection molding               |                |                 |
| Physical                                                         | Nominal Value                   | Unit           | Test Method     |
| Specific Gravity                                                 | 1.20                            | g/cm³          | ASTM D792       |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)                         | 11                              | g/10 min       | ASTM D1238      |
| Molding Shrinkage - Flow (3.20 mm)                               | 0.50 - 0.70                     | %              | Internal method |
| Water Absorption (24 hr)                                         | 0.15                            | %              | ASTM D570       |
| Outdoor Suitability                                              | f1                              |                | UL 746C         |
| Mechanical                                                       | Nominal Value                   | Unit           | Test Method     |
| Tensile Strength <sup>1</sup> (Yield)                            | 62.1                            | MPa            | ASTM D638       |
| Tensile Elongation <sup>2</sup> (Break)                          | 130                             | %              | ASTM D638       |
| Flexural Modulus <sup>3</sup> (50.0 mm Span)                     | 2340                            | MPa            | ASTM D790       |
| Flexural Strength <sup>4</sup> (Yield, 50.0 mm Span)             | 96.5                            | MPa            | ASTM D790       |
| Impact                                                           | Nominal Value                   | Unit           | Test Method     |
| Notched Izod Impact (23°C)                                       | 800                             | J/m            | ASTM D256       |
| Instrumented Dart Impact (23°C, Energy at Peak Load)             | 63.8                            | J              | ASTM D3763      |
| Dart Drop Impact (23°C)                                          | 169                             | J              | Internal method |
| Tensile Impact Strength <sup>5</sup>                             | 578                             | kJ/m²          | ASTM D1822      |
| Thermal                                                          | Nominal Value                   | Unit           | Test Method     |
| Deflection Temperature Under Load (1.8 MPa, Unannealed, 6.40 mm) | 132                             | °C             | ASTM D648       |
| RTI Elec                                                         | 100                             | °C             | UL 746          |
| RTI Imp                                                          | 100                             | °C             | UL 746          |
| RTI                                                              | 100                             | °C             | UL 746          |
| Electrical                                                       | Nominal Value                   | Test Method    |                 |
| Comparative Tracking Index (CTI)                                 | PLC 2                           | UL 746         |                 |
| High Amp Arc Ignition (HAI)                                      | PLC 1                           | UL 746         |                 |

|                                       |                  |      |             |
|---------------------------------------|------------------|------|-------------|
| High Voltage Arc Tracking Rate (HVTR) | PLC 2            |      | UL 746      |
| Hot-wire Ignition (HWI)               | PLC 4            |      | UL 746      |
| Flammability                          | Nominal Value    |      | Test Method |
| Flame Rating (1.47 mm)                | HB               |      | UL 94       |
| Optical                               | Nominal Value    | Unit | Test Method |
| Transmittance (2540 μm)               | 88.0             | %    | ASTM D1003  |
| Injection                             | Nominal Value    | Unit |             |
| Drying Temperature                    | 121              | °C   |             |
| Drying Time                           | 3.0 - 4.0        | hr   |             |
| Drying Time, Maximum                  | 48               | hr   |             |
| Suggested Max Moisture                | 0.020            | %    |             |
| Suggested Shot Size                   | 40 - 60          | %    |             |
| Rear Temperature                      | 271 - 293        | °C   |             |
| Middle Temperature                    | 282 - 304        | °C   |             |
| Front Temperature                     | 293 - 316        | °C   |             |
| Nozzle Temperature                    | 288 - 310        | °C   |             |
| Processing (Melt) Temp                | 293 - 316        | °C   |             |
| Mold Temperature                      | 71.1 - 93.3      | °C   |             |
| Back Pressure                         | 0.345 - 0.689    | MPa  |             |
| Screw Speed                           | 40 - 70          | rpm  |             |
| Vent Depth                            | 0.025 - 0.076    | mm   |             |
| NOTE                                  |                  |      |             |
| 1.                                    | Type 1, 50mm/min |      |             |
| 2.                                    | Type 1, 50mm/min |      |             |
| 3.                                    | 1.3 mm/min       |      |             |
| 4.                                    | 1.3 mm/min       |      |             |
| 5.                                    | Type S           |      |             |

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