

# LEXAN™ EXL9330S resin

Polycarbonate

SABIC Innovative Plastics Europe

## Message:

Opaque PC-Siloxane copolymer with excellent processability. UV stabilized. UL rated V-0/5VA/CTI-PLC-2. Available in limited colors; please contact your SABIC IP representative

| General Information                        |                     |                        |                     |
|--------------------------------------------|---------------------|------------------------|---------------------|
| Additive                                   | UV Stabilizer       |                        |                     |
| Features                                   | Copolymer           |                        |                     |
|                                            | Good Processability |                        |                     |
| RoHS Compliance                            | RoHS Compliant      |                        |                     |
| Appearance                                 | Colors Available    |                        |                     |
|                                            | Opaque              |                        |                     |
| Processing Method                          | Injection Molding   |                        |                     |
| Physical                                   | Nominal Value       | Unit                   | Test Method         |
| Specific Gravity                           | 1.24                | g/cm <sup>3</sup>      | ASTM D792, ISO 1183 |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)   | 8.0                 | g/10 min               | ASTM D1238          |
| Melt Volume-Flow Rate (MVR) (300°C/1.2 kg) | 7.00                | cm <sup>3</sup> /10min | ISO 1133            |
| Molding Shrinkage                          |                     |                        | Internal Method     |
| Flow : 3.20 mm                             | 0.40 to 0.80        | %                      |                     |
| Across Flow : 3.20 mm                      | 0.40 to 0.80        | %                      |                     |
| Water Absorption                           |                     |                        | ISO 62              |
| Saturation, 23°C                           | 0.12                | %                      |                     |
| Equilibrium, 23°C, 50% RH                  | 0.050               | %                      |                     |
| Outdoor Suitability                        | f1                  |                        | UL 746C             |
| Mechanical                                 | Nominal Value       | Unit                   | Test Method         |
| Tensile Modulus                            |                     |                        |                     |
| -- <sup>1</sup>                            | 2150                | MPa                    | ASTM D638           |
| --                                         | 2150                | MPa                    | ISO 527-2/1         |
| Tensile Strength                           |                     |                        |                     |
| Yield <sup>2</sup>                         | 59.0                | MPa                    | ASTM D638           |
| Yield                                      | 59.0                | MPa                    | ISO 527-2/50        |
| Break <sup>3</sup>                         | 58.0                | MPa                    | ASTM D638           |
| Break                                      | 58.0                | MPa                    | ISO 527-2/50        |
| Tensile Elongation                         |                     |                        |                     |
| Yield <sup>4</sup>                         | 6.0                 | %                      | ASTM D638           |
| Yield                                      | 6.0                 | %                      | ISO 527-2/50        |

|                                                 |               |                   |                                           |
|-------------------------------------------------|---------------|-------------------|-------------------------------------------|
| Break <sup>5</sup>                              | 100           | %                 | ASTM D638                                 |
| Break                                           | 100           | %                 | ISO 527-2/50                              |
| Flexural Modulus                                |               |                   |                                           |
| 50.0 mm Span <sup>6</sup>                       | 2150          | MPa               | ASTM D790                                 |
| -- <sup>7</sup>                                 | 2150          | MPa               | ISO 178                                   |
| Flexural Stress                                 |               |                   |                                           |
| --                                              | 86.0          | MPa               | ISO 178                                   |
| Yield, 50.0 mm Span <sup>8</sup>                | 86.0          | MPa               | ASTM D790                                 |
| Impact                                          | Nominal Value | Unit              | Test Method                               |
| Charpy Notched Impact Strength <sup>9</sup>     |               |                   | ISO 179/1eA                               |
| -30°C                                           | 50            | kJ/m <sup>2</sup> |                                           |
| 23°C                                            | 70            | kJ/m <sup>2</sup> |                                           |
| Charpy Unnotched Impact Strength <sup>10</sup>  |               |                   | ISO 179/1eU                               |
| -30°C                                           | No Break      |                   |                                           |
| 23°C                                            | No Break      |                   |                                           |
| Notched Izod Impact                             |               |                   |                                           |
| -50°C                                           | 450           | J/m               | ASTM D256                                 |
| -30°C                                           | 550           | J/m               | ASTM D256                                 |
| 23°C                                            | 700           | J/m               | ASTM D256                                 |
| -30°C <sup>11</sup>                             | 50            | kJ/m <sup>2</sup> | ISO 180/1A                                |
| 23°C <sup>12</sup>                              | 75            | kJ/m <sup>2</sup> | ISO 180/1A                                |
| Unnotched Izod Impact Strength <sup>13</sup>    |               |                   | ISO 180/1U                                |
| -30°C                                           | No Break      |                   |                                           |
| 23°C                                            | No Break      |                   |                                           |
| Thermal                                         | Nominal Value | Unit              | Test Method                               |
| Deflection Temperature Under Load               |               |                   |                                           |
| 0.45 MPa, Unannealed, 3.20 mm                   | 139           | °C                | ASTM D648                                 |
| 0.45 MPa, Unannealed, 100 mm Span <sup>14</sup> | 139           | °C                | ISO 75-2/Be                               |
| 1.8 MPa, Unannealed, 3.20 mm                    | 126           | °C                | ASTM D648                                 |
| 1.8 MPa, Unannealed, 64.0 mm Span <sup>15</sup> | 126           | °C                | ISO 75-2/Af                               |
| Vicat Softening Temperature                     |               |                   |                                           |
| --                                              | 147           | °C                | ASTM D1525, ISO 306/B120 12 <sup>16</sup> |
| --                                              | 145           | °C                | ISO 306/B50                               |
| Ball Pressure Test (125°C)                      | Pass          |                   | IEC 60695-10-2                            |
| RTI Elec                                        | 125           | °C                | UL 746                                    |
| RTI Imp                                         | 110           | °C                | UL 746                                    |
| RTI Str                                         | 125           | °C                | UL 746                                    |
| Electrical                                      | Nominal Value | Unit              | Test Method                               |
| Comparative Tracking Index (CTI)                | PLC 2         |                   | UL 746                                    |
| Comparative Tracking Index                      | 250           | V                 | IEC 60112                                 |
| High Amp Arc Ignition (HAI)                     | PLC 0         |                   | UL 746                                    |

|                                          |                                    |      |                |
|------------------------------------------|------------------------------------|------|----------------|
| Hot-wire Ignition (HWI)                  | PLC 2                              |      | UL 746         |
| Flammability                             | Nominal Value                      | Unit | Test Method    |
| Flame Rating                             |                                    |      | UL 94          |
| 0.800 mm                                 | V-0                                |      |                |
| 2.00 mm                                  | 5VB                                |      |                |
| 2.50 mm                                  | 5VA                                |      |                |
| Glow Wire Flammability Index (1.90 mm)   | 960                                | °C   | IEC 60695-2-12 |
| Glow Wire Ignition Temperature (1.00 mm) | 900                                | °C   | IEC 60695-2-13 |
| Injection                                | Nominal Value                      | Unit |                |
| Drying Temperature                       | 121                                | °C   |                |
| Drying Time                              | 3.0 to 4.0                         | hr   |                |
| Drying Time, Maximum                     | 48                                 | hr   |                |
| Suggested Max Moisture                   | 0.020                              | %    |                |
| Suggested Shot Size                      | 40 to 60                           | %    |                |
| Rear Temperature                         | 217 to 293                         | °C   |                |
| Middle Temperature                       | 282 to 304                         | °C   |                |
| Front Temperature                        | 293 to 316                         | °C   |                |
| Nozzle Temperature                       | 288 to 310                         | °C   |                |
| Processing (Melt) Temp                   | 293 to 316                         | °C   |                |
| Mold Temperature                         | 71.0 to 93.0                       | °C   |                |
| Back Pressure                            | 0.345 to 0.689                     | MPa  |                |
| Screw Speed                              | 40 to 70                           | rpm  |                |
| Vent Depth                               | 0.025 to 0.076                     | mm   |                |
| NOTE                                     |                                    |      |                |
| 1.                                       | 50 mm/min                          |      |                |
| 2.                                       | Type I, 50 mm/min                  |      |                |
| 3.                                       | Type I, 50 mm/min                  |      |                |
| 4.                                       | Type I, 50 mm/min                  |      |                |
| 5.                                       | Type I, 50 mm/min                  |      |                |
| 6.                                       | 1.3 mm/min                         |      |                |
| 7.                                       | 2.0 mm/min                         |      |                |
| 8.                                       | 1.3 mm/min                         |      |                |
| 9.                                       | 80*10*3 sp=62mm                    |      |                |
| 10.                                      | 80*10*3 sp=62mm                    |      |                |
| 11.                                      | 80*10*3                            |      |                |
| 12.                                      | 80*10*3                            |      |                |
| 13.                                      | 80*10*3                            |      |                |
| 14.                                      | 120*10*4 mm                        |      |                |
| 15.                                      | 80*10*4 mm                         |      |                |
| 16.                                      | Rate B (120°C/h), Loading 2 (50 N) |      |                |

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

