



## LEXAN™ Resin LUX9612

### Asia Pacific: COMMERCIAL

Lexan LUX9612 is a flame retardant polycarbonate featuring non brominated and non chlorinated FR system with diffusion effective and thin wall FR performance. It intended to meet WEEE/RoHS requirements for various applications.

| TYPICAL PROPERTIES <sup>1</sup>              | TYPICAL VALUE | Unit                | Standard    |
|----------------------------------------------|---------------|---------------------|-------------|
| <b>MECHANICAL</b>                            |               |                     |             |
| Tensile Stress, yld, Type I, 50 mm/min       | 630           | kgf/cm <sup>2</sup> | ASTM D 638  |
| Tensile Stress, brk, Type I, 50 mm/min       | 660           | kgf/cm <sup>2</sup> | ASTM D 638  |
| Tensile Strain, yld, Type I, 50 mm/min       | 6             | %                   | ASTM D 638  |
| Tensile Strain, brk, Type I, 50 mm/min       | 80            | %                   | ASTM D 638  |
| Tensile Modulus, 5 mm/min                    | 23400         | kgf/cm <sup>2</sup> | ASTM D 638  |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 960           | kgf/cm <sup>2</sup> | ASTM D 790  |
| Flexural Modulus, 1.3 mm/min, 50 mm span     | 22000         | kgf/cm <sup>2</sup> | ASTM D 790  |
| Tensile Stress, yield, 50 mm/min             | 62            | MPa                 | ISO 527     |
| Tensile Stress, break, 50 mm/min             | 58            | MPa                 | ISO 527     |
| Tensile Strain, yield, 50 mm/min             | 6             | %                   | ISO 527     |
| Tensile Strain, break, 50 mm/min             | 75            | %                   | ISO 527     |
| Tensile Modulus, 1 mm/min                    | 2230          | MPa                 | ISO 527     |
| Flexural Stress, brk, 12.5 mm/min            | 95            | MPa                 | ISO 178     |
| Flexural Modulus, 2 mm/min                   | 2250          | MPa                 | ISO 178     |
| <b>IMPACT</b>                                |               |                     |             |
| Izod Impact, notched, 23°C                   | 40            | cm-kgf/cm           | ASTM D 256  |
| Instrumented Impact Total Energy, 23°C       | 713           | cm-kgf              | ASTM D 3763 |
| Izod Impact, notched 80*10*3 +23°C           | 40            | kJ/m <sup>2</sup>   | ISO 180/1A  |
| <b>THERMAL</b>                               |               |                     |             |
| Vicat Softening Temp, Rate B/50              | 140           | °C                  | ASTM D 1525 |
| HDT, 1.82 MPa, 3.2mm, unannealed             | 123           | °C                  | ASTM D 648  |
| CTE, -40°C to 40°C, flow                     | 6.8E-05       | 1/°C                | ASTM E 831  |
| CTE, -40°C to 40°C, xflow                    | 6.7E-05       | 1/°C                | ASTM E 831  |



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| <b>THERMAL</b>                                |               |                   |                |
| Ball Pressure Test, 125°C +/- 2°C             | PASSES        | -                 | IEC 60695-10-2 |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm         | 123           | °C                | ISO 75/Af      |
| <b>PHYSICAL</b>                               |               |                   |                |
| Specific Gravity                              | 1.2           | -                 | ASTM D 792     |
| Mold Shrinkage, flow, 3.2 mm (5)              | 0.6 - 0.8     | %                 | SABIC Method   |
| Melt Flow Rate, 300°C/1.2 kgf                 | 7             | g/10 min          | ASTM D 1238    |
| Density                                       | 1.2           | g/cm <sup>3</sup> | ISO 1183       |
| Water Absorption, (23°C/sat)                  | 0.35          | %                 | ISO 62         |
| Moisture Absorption (23°C / 50% RH)           | 0.15          | %                 | ISO 62         |
| <b>ELECTRICAL</b>                             |               |                   |                |
| Hot Wire Ignition {PLC}                       | 3             | PLC Code          | UL 746A        |
| High Ampere Arc Ign, surface {PLC}            | 1             | PLC Code          | UL 746A        |
| Comparative Tracking Index (UL) {PLC}         | 3             | PLC Code          | UL 746A        |
| <b>FLAME CHARACTERISTICS</b>                  |               |                   |                |
| UL Recognized, 94V-0 Flame Class Rating (3)   | 1.5           | mm                | UL 94          |
| Glow Wire Flammability Index 960°C, passes at | 1             | mm                | IEC 60695-2-12 |
| Glow Wire Ignitability Temperature, 1.0 mm    | 850           | °C                | IEC 60695-2-13 |
| Glow Wire Ignitability Temperature, 1.5 mm    | 850           | °C                | IEC 60695-2-13 |



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| PROCESSING PARAMETERS       | TYPICAL VALUE | Unit |
|-----------------------------|---------------|------|
| <b>Injection Molding</b>    |               |      |
| Drying Temperature          | 120           | °C   |
| Drying Time                 | 2 - 4         | hrs  |
| Maximum Moisture Content    | 0.02          | %    |
| Melt Temperature            | 280 - 310     | °C   |
| Nozzle Temperature          | 270 - 290     | °C   |
| Front - Zone 3 Temperature  | 280 - 310     | °C   |
| Middle - Zone 2 Temperature | 270 - 290     | °C   |
| Rear - Zone 1 Temperature   | 260 - 280     | °C   |
| Hopper Temperature          | 60 - 80       | °C   |
| Mold Temperature            | 80 - 110      | °C   |



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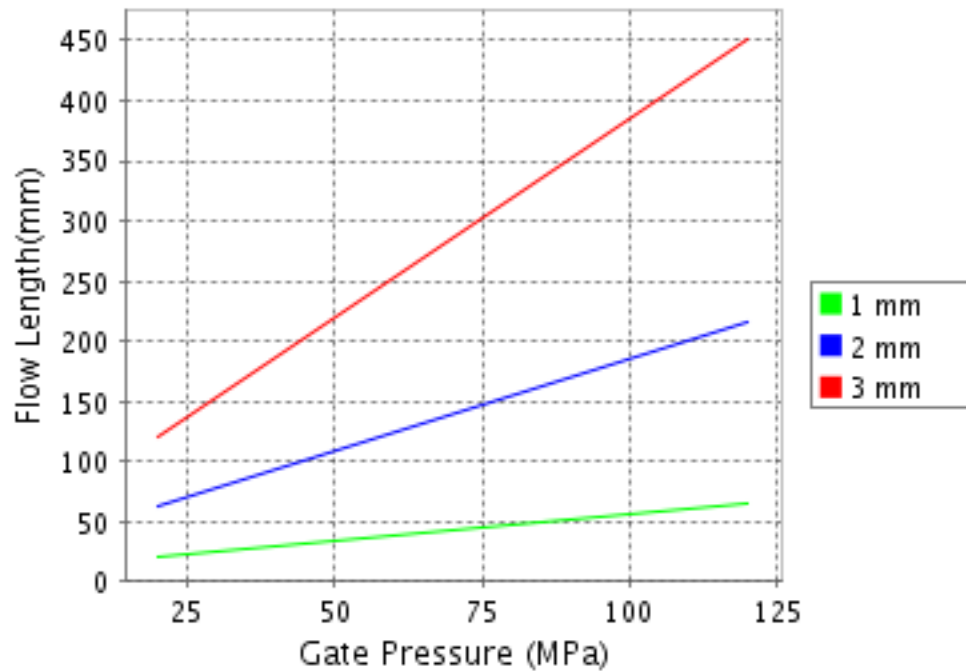
### CALCULATED FLOW LENGTH INDICATION

Moldflow® Radial Flow Analysis

LEXAN® LUX9612

Melt Temperature : 295°C

Mold Temperature : 95°C



**Note: Technical support is recommended if Gate Pressure is greater than 80 MPa. Contact your local representative.**

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