

## LEXANT™ RESIN LUX2114G

REGION EUROPE

### DESCRIPTION

18 MFR. Improved flame retardance. Internal mold release. UV stabilized.

### TYPICAL PROPERTY VALUES

Revision 20210402

| PROPERTIES                                  | TYPICAL VALUES | UNITS     | TEST METHODS   |
|---------------------------------------------|----------------|-----------|----------------|
| <b>MECHANICAL</b>                           |                |           |                |
| Hardness, Rockwell M                        | 70             | -         | ASTM D785      |
| Hardness, Rockwell R                        | 118            | -         | ASTM D785      |
| Taber Abrasion, CS-17, 1 kg                 | 10             | mg/1000cy | ASTM D1044     |
| Tensile Stress, yield, 50 mm/min            | 63             | MPa       | ISO 527        |
| Tensile Stress, break, 50 mm/min            | 65             | MPa       | ISO 527        |
| Tensile Strain, yield, 50 mm/min            | 6              | %         | ISO 527        |
| Tensile Strain, break, 50 mm/min            | 100            | %         | ISO 527        |
| Tensile Modulus, 1 mm/min                   | 2300           | MPa       | ISO 527        |
| Flexural Stress, yield, 2 mm/min            | 94             | MPa       | ISO 178        |
| Flexural Modulus, 2 mm/min                  | 2250           | MPa       | ISO 178        |
| <b>IMPACT</b>                               |                |           |                |
| Izod Impact, unnotched, 23°C                | NB             | J/m       | ASTM D4812     |
| Izod Impact, notched, 23°C                  | 450            | J/m       | ASTM D256      |
| Multiaxial Impact                           | 130            | J         | ISO 6603       |
| Izod Impact, unnotched 80°10'3 +23°C        | NB             | kJ/m²     | ISO 180/1U     |
| Izod Impact, unnotched 80°10'3 -30°C        | NB             | kJ/m²     | ISO 180/1U     |
| Izod Impact, notched 80°10'3 +23°C          | 40             | kJ/m²     | ISO 180/1A     |
| Izod Impact, notched 80°10'3 -30°C          | 11             | kJ/m²     | ISO 180/1A     |
| Charpy 23°C, V-notch Edgew 80°10'3 sp=62mm  | 43             | kJ/m²     | ISO 179/1eA    |
| Charpy -30°C, V-notch Edgew 80°10'3 sp=62mm | 12             | kJ/m²     | ISO 179/1eA    |
| Charpy 23°C, Unnotch Edgew 80°10'3 sp=62mm  | NB             | kJ/m²     | ISO 179/1eU    |
| Charpy -30°C, Unnotch Edgew 80°10'3 sp=62mm | NB             | kJ/m²     | ISO 179/1eU    |
| <b>THERMAL</b>                              |                |           |                |
| CTE, -40°C to 95°C, flow                    | 6.84E-05       | 1/°C      | ASTM E831      |
| Specific Heat                               | 1.26           | J/g·°C    | ASTM C351      |
| Thermal Conductivity                        | 0.2            | W/m·°C    | ASTM C177      |
| Ball Pressure Test, 125°C +/- 2°C           | PASSES         | -         | IEC 60695-10-2 |
| Vicat Softening Temp, Rate B/50             | 140            | °C        | ISO 306        |
| Vicat Softening Temp, Rate B/120            | 141            | °C        | ISO 306        |
| HDT/Af, 1.8 MPa Flatw 80°10'4 sp=64mm       | 123            | °C        | ISO 75/Af      |
| HDT/Bf, 0.45 MPa Flatw 80°10'4 sp=64mm      | 135            | °C        | ISO 75/Bf      |
| 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        |
| <b>PHYSICAL</b>                             |                |           |                |

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| PROPERTIES                                          | TYPICAL VALUES | UNITS      | TEST METHODS   |
|-----------------------------------------------------|----------------|------------|----------------|
| Water Absorption, equilibrium, 100°C                | 0.58           | %          | ASTM D570      |
| Mold Shrinkage, flow, 3.2 mm                        | 0.5 – 0.7      | %          | SABIC method   |
| Density                                             | 1.2            | g/cm³      | ISO 1183       |
| Water Absorption, (23°C/saturated)                  | 0.35           | %          | ISO 62-1       |
| Moisture Absorption (23°C / 50% RH)                 | 0.13           | %          | ISO 62         |
| Melt Volume Rate, MVR at 300°C/1.2 kg               | 18             | cm³/10 min | ISO 1133       |
| OPTICAL                                             |                |            |                |
| Refractive Index                                    | 1.586          | -          | ISO 489        |
| ELECTRICAL                                          |                |            |                |
| Dielectric Strength, in air, 3.2 mm                 | 15             | kV/mm      | ASTM D149      |
| Relative Permittivity, 50/60 Hz                     | 3.17           | -          | ASTM D150      |
| Relative Permittivity, 1 MHz                        | 2.96           | -          | ASTM D150      |
| Dissipation Factor, 50/60 Hz                        | 0.0009         | -          | ASTM D150      |
| Dissipation Factor, 1 MHz                           | 0.01           | -          | ASTM D150      |
| 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        |
| Volume Resistivity                                  | >1.E+15        | Ω.cm       | IEC 60093      |
| FLAME CHARACTERISTICS                               |                |            |                |
| UL Recognized, 94V-2 Flame Class Rating             | 0.75           | mm         | UL 94          |
| Glow Wire Flammability Index 750°C, passes at       | 0.75           | mm         | IEC 60695-2-12 |
| Glow Wire Flammability Index 850°C, passes at       | 1.5            | mm         | IEC 60695-2-12 |
| Glow Wire Ignitability Temperature, 0.75 mm, by VDE | 875            | °C         | IEC 60695-2-13 |
| Glow Wire Ignitability Temperature, 1.5 mm          | 850            | °C         | IEC 60695-2-13 |
| UV-light, water exposure/immersion                  | F2             | -          | UL 746C        |
| INJECTION MOLDING                                   |                |            |                |
| Drying Temperature                                  | 120            | °C         |                |
| Drying Time                                         | 2 – 4          | Hrs        |                |
| Maximum Moisture Content                            | 0.02           | %          |                |
| Melt Temperature                                    | 280 – 300      | °C         |                |
| Nozzle Temperature                                  | 270 – 290      | °C         |                |
| Front - Zone 3 Temperature                          | 280 – 300      | °C         |                |
| Middle - Zone 2 Temperature                         | 270 – 290      | °C         |                |
| Rear - Zone 1 Temperature                           | 260 – 280      | °C         |                |
| Hopper Temperature                                  | 60 – 80        | °C         |                |
| Mold Temperature                                    | 80 – 100       | °C         |                |

### DESCRIPTION

TBD

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