

## SABIC Innovative Plastics Lexan® 925U PC

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

Lexan® 925U Polycarbonate (PC) resin is a non-filled, injection moldable grade. This non-chlorinated, non-brominated flame retardant PC has an UL-94 V0 rating and is UV stabilized, providing additional weathering capability. Lexan 925U resin is available in opaque color options and is a general-purpose resin that is an excellent candidate for a wide variety of applications.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Lexan-925U-PC.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-925U-PC.php)

| Physical Properties         | Metric                                              | English                                             | Comments     |
|-----------------------------|-----------------------------------------------------|-----------------------------------------------------|--------------|
| Specific Gravity            | 1.19 g/cc                                           | 1.19 g/cc                                           | ASTM D792    |
| Linear Mold Shrinkage, Flow | 0.0060 - 0.0080 cm/cm<br>@Thickness 3.20 mm         | 0.0060 - 0.0080 in/in<br>@Thickness 0.126 in        | SABIC Method |
| Melt Flow                   | 14 g/10 min<br>@Load 1.20 kg,<br>Temperature 300 °C | 14 g/10 min<br>@Load 2.65 lb,<br>Temperature 572 °F | ASTM D1238   |

| Mechanical Properties     | Metric                         | English                            | Comments                          |
|---------------------------|--------------------------------|------------------------------------|-----------------------------------|
| Tensile Strength at Break | 65.0 MPa                       | 9430 psi                           | Type I, 50 mm/min; ASTM D638      |
| Tensile Strength, Yield   | 62.0 MPa                       | 8990 psi                           | Type I, 50 mm/min; ASTM D638      |
| Elongation at Break       | 125 %                          | 125 %                              | Type I, 50 mm/min; ASTM D638      |
| Elongation at Yield       | 6.0 %                          | 6.0 %                              | Type I, 50 mm/min; ASTM D638      |
| Tensile Modulus           | 2.27 GPa                       | 329 ksi                            | 50 mm/min; ASTM D638              |
| Flexural Yield Strength   | 101 MPa                        | 14600 psi                          | 1.3 mm/min, 50 mm span; ASTM D790 |
| Flexural Modulus          | 2.34 GPa                       | 339 ksi                            | 1.3 mm/min, 50 mm span; ASTM D790 |
| Izod Impact, Notched      | 8.01 J/cm                      | 15.0 ft-lb/in                      | ASTM D256                         |
| Dart Drop, Total Energy   | 73.0 J<br>@Temperature 23.0 °C | 53.8 ft-lb<br>@Temperature 73.4 °F | ASTM D3763                        |

| Thermal Properties            | Metric                                          | English                                          | Comments   |
|-------------------------------|-------------------------------------------------|--------------------------------------------------|------------|
| CTE, linear, Parallel to Flow | 66.6 µm/m-°C<br>@Temperature -40.0 -<br>40.0 °C | 37.0 µin/in-°F<br>@Temperature -40.0 -<br>104 °F | ASTM E 831 |

| Thermal Properties                          | Metric                       | English                         | Comments              |
|---------------------------------------------|------------------------------|---------------------------------|-----------------------|
| CTE, linear, Transverse to Flow             | @Temperature -40.0 - 40.0 °C | @Temperature -40.0 - 104 °F     | ASTM E 831            |
| Deflection Temperature at 0.46 MPa (66 psi) | 137 °C<br>@Thickness 3.20 mm | 279 °F<br>@Thickness 0.126 in   | unannealed; ASTM D648 |
| Deflection Temperature at 1.8 MPa (264 psi) | 126 °C<br>@Thickness 3.20 mm | 259 °F<br>@Thickness 0.126 in   | unannealed; ASTM D648 |
| Vicat Softening Point                       | 143 °C                       | 289 °F                          | Rate B/50; ASTM D1525 |
| UL RTI, Electrical                          | 130 °C                       | 266 °F                          | UL 746B               |
| UL RTI, Mechanical with Impact              | 120 °C                       | 248 °F                          | UL 746B               |
| UL RTI, Mechanical without Impact           | 130 °C                       | 266 °F                          | UL 746B               |
| Flammability, UL94                          | V-2<br>@Thickness 0.800 mm   | V-2<br>@Thickness 0.0315 in     | UL 94                 |
|                                             | V-0<br>@Thickness 1.52 mm    | V-0<br>@Thickness 0.0598 in     | UL 94                 |
| Glow Wire Test                              | 875 °C                       | 1610 °F                         | IEC 60695-2-13        |
|                                             | 960 °C<br>@Thickness 1.00 mm | 1760 °F<br>@Thickness 0.0394 in | IEC 60695-2-12        |

| Electrical Properties                | Metric            | English            | Comments            |
|--------------------------------------|-------------------|--------------------|---------------------|
| Arc Resistance                       | 0.00 - 60 sec     | 0.00 - 60 sec      | Tungsten; ASTM D495 |
| Comparative Tracking Index           | 175 - 250 V       | 175 - 250 V        | UL 746A             |
| Hot Wire Ignition, HWI               | 30 - 60 sec       | 30 - 60 sec        | UL 746A             |
| High Amp Arc Ignition, HAI           | 30 - 60 arcs      | 30 - 60 arcs       | UL 746A             |
| High Voltage Arc-Tracking Rate, HVTR | 80.0 - 150 mm/min | 3.15 - 5.91 in/min | UL 746A             |

| Descriptive Properties             | Value | Comments |
|------------------------------------|-------|----------|
| UV-light, water exposure/immersion | F1    | UL 746C  |

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