

## SABIC Innovative Plastics Lexan® 955U PC

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

Lexan® 955U 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 955U resin is available in various opaque color options and is a general-purpose resin ideal for a wide variety of applications. This data was supplied by SABIC-IP for the Americas region.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Lexan-955U-PC.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-955U-PC.php)

| Physical Properties         | Metric   | English  | Comments     |
|-----------------------------|--|--|--------------|
| Specific Gravity            | 1.19 g/cc  | 1.19 g/cc  | ASTM D 792   |
| 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                   | 7.0 g/10 min<br>@Load 1.20 kg,<br>Temperature 300 °C | 7.0 g/10 min<br>@Load 2.65 lb,<br>Temperature 572 °F | ASTM D 1238  |

| Mechanical Properties     | Metric                            | English                               | Comments   |
|---------------------------|-----------------------------------|---------------------------------------|--|
| Tensile Strength at Break | 65.0 MPa                          | 9430 psi                              | Type I, 50 mm/min; ASTM D 638                    |
| Tensile Strength, Yield   | 62.0 MPa                          | 8990 psi                              | Type I, 50 mm/min; ASTM D 638                    |
| Elongation at Break       | 125 %                             | 125 %                                 | Type I, 50 mm/min; ASTM D 638                    |
| Elongation at Yield       | 6.4 %                             | 6.4 %                                 | Type I, 50 mm/min; ASTM D 638                    |
| Tensile Modulus           | 2.27 GPa                          | 329 ksi                               | 50 mm/min; ASTM D 638                            |
| Flexural Yield Strength   | 101 MPa                           | 14600 psi                             | 1.3 mm/min, 50 mm span; ASTM D 790               |
| Flexural Modulus          | 2.34 GPa                          | 339 ksi                               | 1.3 mm/min, 50 mm span; ASTM D 790               |
| Izod Impact, Notched      | 8.01 J/cm<br>@Temperature 23.0 °C | 15.0 ft-lb/in<br>@Temperature 73.4 °F | ASTM D 256                                       |
| Impact Test               | 73.0 J<br>@Temperature 23.0 °C    | 53.8 ft-lb<br>@Temperature 73.4 °F    | Instrumented Impact Total Energy;<br>ASTM D 3763 |

| Thermal Properties | Metric       | English        | Comments |
|--------------------|--------------|----------------|----------|
|                    | 66.6 µm/m-°C | 37.0 µin/in-°F |          |

| Thermal Properties                          | Metric                       | English                     | Comments   |
|---|------------------------------|-----------------------------|--|
|   | @Temperature -40.0 - 40.0 °C | @Temperature -40.0 - 104 °F |  |
| CTE, linear, Transverse to Flow             | 66.6 µm/m-°C                 | 37.0 µin/in-°F              | ASTM E 831   |
|   | @Temperature -40.0 - 40.0 °C | @Temperature -40.0 - 104 °F |  |
| Deflection Temperature at 0.46 MPa (66 psi) | 137 °C                       | 279 °F                      | unannealed; ASTM D 648                             |
|   | @Thickness 3.20 mm           | @Thickness 0.126 in         |  |
| Deflection Temperature at 1.8 MPa (264 psi) | 126 °C                       | 259 °F                      | unannealed; ASTM D 648                             |
|   | @Thickness 3.20 mm           | @Thickness 0.126 in         |  |
| Vicat Softening Point                       | 143 °C                       | 289 °F                      | Rate B/50; ASTM D 1525                             |
| 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                          | V-2                         | UL 94  |
|   | @Thickness 0.800 mm          | @Thickness 0.0315 in        |  |
|   | V-0                          | V-0                         | UL 94  |
|   | @Thickness 1.52 mm           | @Thickness 0.0598 in        |  |
| Glow Wire Test                              | 850 °C                       | 1560 °F                     | Glow Wire Ignitability Temperature; IEC 60695-2-13 |
|   | @Thickness 1.00 mm           | @Thickness 0.0394 in        |  |
|   | 960 °C                       | 1760 °F                     | Glow Wire Flammability Index; IEC 60695-2-12       |
|   | @Thickness 1.00 mm           | @Thickness 0.0394 in        |  |

| Electrical Properties                | Metric            | English            | Comments                         |
|--------------------------------------|-------------------|--------------------|----------------------------------|
| Arc Resistance                       | 0.00 - 60 sec     | 0.00 - 60 sec      | Tungsten, PLC code 7; ASTM D 495 |
| Comparative Tracking Index           | 175 - 250 V       | 175 - 250 V        | PLC code 3; UL 746A              |
| Hot Wire Ignition, HWI               | 30 - 60 sec       | 30 - 60 sec        | PLC code 2; UL 746A              |
| High Amp Arc Ignition, HAI           | 30 - 60 arcs      | 30 - 60 arcs       | surface, PLC code 2; UL 746A     |
| High Voltage Arc-Tracking Rate, HVTR | 80.0 - 150 mm/min | 3.15 - 5.91 in/min | PLC code 3; UL 746A              |

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

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